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ABNORMAL HYPNOTIC PHENOMENA

A Survey of Nineteenth-Century Cases

Edited by ERIC J. DINGWALL, D.Sc.

VOLUME II
Belgium and the Netherlands
GEORGE ZORAB

Germany

LISELOTTE MOSER Dr. Phil., Diplom-Psychologin



Scandinavia ERIK BJELFVENSTAM



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GENERAL INTRODUCTION

The object of the present series of volumes is to fill a gap in the literature of hypnotism as far as a number of countries is concerned both in the Old and New Worlds. Generally speaking, accounts of alleged paranormal phenomena occurring in the mesmeric and hypnotic states have been omitted by writers on hypnotism and no detailed treatment of this aspect of the question has so far been published.

The main reason why this gap in the literature of hypnotism exists is that in the nineteenth century interest in mesmerism was aroused and maintained not only by accounts of the therapeutic value of mesmeric treatment and its use as an anaesthetic agent in surgery, but also because paranormal phenomena were said to occur with very many of the somnambules. Thought-transmission, eyeless-sight, travelling clairvoyance and mental suggestion at a distance were all said to occur constantly; and the fear of being thought unorthodox and tainted by the "occult" effectively prevented many serious men of learning from becoming too closely

associated with the mesmerists, both medical and lay.

The aim here, therefore, is to raise the curtain on the almost unknown and forgotten activities of the mesmerists of the nineteenth century, while concentrating on the paranormal aspects of their work. Since reports of such phenomena occurring in the hypnotic state begin to disappear before the end of the nineteenth century and are rarely reported in the first part of the twentieth, the account of mesmerism here presented ceases at the end of the nineteenth century. Although in some countries of Europe reports of paranormal phenomena in mesmerism are far slighter than others, attempts have been made to give a general picture of the scene while paying greater attention to countries like France, Germany and England, where a mass of material exists from which it is hoped a representative collection of cases has been examined.

In each section the opinions and conclusions of the contributor are his or her own. Great care has been taken to avoid mistakes, although it cannot be hoped that a work of this magnitude will be free from errors, and both the editor and the contributors will be

grateful to any readers for their corrections and criticisms.



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Hypnotism in Belgium and the Netherlands

by GEORGE ZORAB

"Vous voyez qu'en ce fait la plus forte apparence Peut jeter dans l'esprit une fausse créance. De cet exemple-ci ressouvenez-vous bien; Et quand vous verriez tout, ne croyez jamais rien." MOLIÈRE. Sganarelle, Sc. XXIV.

INTRODUCTION

In Belgium the influence of Mesmer was first felt when he left France and settled at Spa in 1781. After his return to Paris some interest was sustained, but it was only much later after Belgium had gained its independence in 1830 that keen interest in mesmerism was aroused. During the next ten years the subject was much discussed, and under the influence of MM. Lafontaine and Idjiez the phenomena of mesmerism became known through accounts published in various newspapers and magazines, but by 1860 interest in scientific circles was waning and mesmeric manipulations were mainly confined to medical treatment. Various public performers like Donato travelled about the country demonstrating hypnotic phenomena; but later investigators like Delboeuf and Crocq found little evidence of any paranormal phenomena being observed during the mesmeric trance, although these had been reported in earlier items by a number of other less critical observers in Belgium.

In the Netherlands the situation was not wholly unlike that in Belgium, although in the late eighteenth century the opposition of academicians like Voltelen postponed open interest in the subject on the part of medical men and others. German influences later spread from the East causing considerable discussion in various circles. Even medical men, having read accounts by their German colleagues of the marvellous phenomena associated with mesmerism, became themselves practitioners, and Holland's golden age may be said to have lasted from 1814 to 1818. Numbers of publications detail the findings of the various investigators; and many of these describing their experiments stress the paranormal phenomena which they had themselves observed. As the years went by and as spiritistic influences made themselves felt during the second half of the nineteenth century, so did the old mesmerism become one with the newer Spiritualism, only later to break off again and become the hypnotism that we know to-day.

The author wishes to extend his thanks to various persons and institutions for much help and assistance given to him during the work, among them being the authorities at the Koninklijke Bibliotheek in The Hague, the Bibliothèque Royale at Brussels, and M. M. Dutilleux of the Bibliothèque Centrale de la Ville de Liège. He is especially indebted to the Archives Department of the Municipality of Amsterdam for kindly permitting the reproduction of the portrait of P. G. van Ghert from their Topographical Atlas.

Hypnotism in Belgium 1800—1900

Introduction

The first time that the influence of Mesmer affected Belgian enquirers was when he found antagonism against his person and system was growing so powerful in Paris that he decided to leave France and for a time settled at Spa, the famous Belgian watering-place, in 1781. It was said that Mesmer's health had become so impaired by what he had experienced in Paris that in an attempt to improve his health and spirits he stayed on in Spa for some time before returning to France or Germany. Even at Spa, however, several rich and influential patients from both France and Belgium, who did not wish to interrupt the mesmeric treatment that they had found so beneficial, approached Mesmer and begged

him to continue his treatment (1).

During his stay at Spa, several of his friends and supporters in France urged Mesmer to return to that country and to start organizing there a group of disciples whom he could train and instruct in the art of healing according to the methods of animal magnetism discovered by him. After some hesitation Mesmer finally yielded to his friends' proposals and once back in France he started to encourage the formation of several societies which were called Harmonial Societies where the secrets of animal magnetism and its successful application in healing all kinds of complaints were made known. In order to become a member of one of these societies it was said that an entrance fee of a hundred Louis d'or had to be paid, and in this way Mesmer at the time that he retired to Switzerland at the outbreak of the French Revolution had acquired a considerable fortune.

After Mesmer's return to Paris, three separate schools of

mesmerism could be distinguished in France and Belgium. There was, to begin with, that group practising the methods used by Mesmer himself, which were considered to be of a purely physical nature. Currents of the all-healing and vital animal magnetism were directed on to the patient by bringing the latter into contact with magnetized iron rods sticking out of tubs full of water and pieces of broken glass. This apparatus was called in France the baquet, although the vital magnetism could also be reflected from mirrors and transported by harmonious musical tunes. method used by the mesmerist was to transfer the magnetic fluid by pressing parts of his body against those of the patient.

Another school of thought was that favoured by the Marquis de Puységur, who discovered that the condition of somnambulism could be induced by making "passes" over the patient; this theory influenced the whole later evolution of mesmerism and became the system generally adopted by most of the nineteenth-century supporters of the theory of the magnetic fluid and of those who

later joined the Spiritualist movement.

The inducement of the somnambulist state was considered especially favourable to the emergence of remarkable phenomena, several of which might be regarded prima facie as of a paranormal nature. These phenomena, including many we now term "normal", were advanced by the mesmerists as sound proof of the reality and spirituality of the magnetic fluid. They also claimed that the remarkable phenomena manifesting themselves during the somnambulist condition (telepathy, clairvoyance, curative powers, etc.) also proved that man is in possession of an immortal soul, displaying its faculties already in the mortal body when stimulated by the magnetic fluid to do so.

A third school under the leadership of the Chevalier Barbarin was also formed and developed a therapeutic system based on the presumed transference of the vital magnetic fluid simply by the mesmerist's firm belief and strong volition that the patient be cured. Prayer, also, was considered conducive to concentrating

the magnetic fluid for curative purposes.

As the disciples of Barbarin did not make use of any physical means to bring about their cures they became known as spiritualists. Their slogan was: Veuillez le bien, allez et guérissez! Barbarin's followers were convinced that by the simple effort of their willpower they could cure sick persons, even from a considerable distance. In 1786 groups of Barbarin spiritualists could be found at Lyon (France) and Ostend (Belgium) (2, 3).

During the golden period of animal magnetism in France, Belgium, then under Austrian domination, seems to have stood practically aside, hardly taking any part in the raging controversy centring around Mesmer's therapeutic system. Although we have found only two papers published in Brussels in 1784 treating the subject (4, 5), there must have been some interest in the matter in certain circles, otherwise it is difficult to explain why a large group of Barbarin disciples had gathered at the Belgian port of This branch of mesmeric spiritualists flourished there for a few years until the beginning of the French Revolution, which great social upheaval killed all interest in Mesmer and his therapeutic methods, involving the Ostend group also. Napoleon, too, discouraged mesmerism, and so for several decades mesmeric therapeutics in Belgium remained in abeyance. In view of the fact that Barbarin's disciples were not interested in somnambulism and its phenomena, no mention is made by the followers of this school of phenomena of a possibly paranormal nature.

Not only in Belgium but also in several European countries interest in mesmerism diminished. Germany, however, was the exception and in this country, just about the time that the French Revolution started, mesmerism according to Puységur's system developed rapidly after Lavater had made it known to some wellknown physicians of the town of Bremen in the year 1787. From there it spread in a great wave all over the country, convincing a great number of Germany's most prominent scholars and medical doctors that somnambulistic mesmerism should be considered a great asset to medical science. Between 1795 and 1810 mesmerism was an accepted and extensively employed therapeutic method; and the remarkable condition of somnambulism, with its concomitant phenomena of apparent extrasensory perception, greatly influenced the view of life (Weltanschauung) of the German philoso-

phers, poets and novelists.

In the course of the first decade of the nineteenth century German enthusiasm for mesmeric procedures in healing and curing the sick spread to Holland, where it started what may be termed the Dutch golden age of mesmerism (1814-1818). But here it stopped, for we find no mention made of mesmeric activities in neighbouring Belgium about that time. Even after the two countries had been united after the fall of Napoleon, Belgium seems to have remained passive and uninterested in the fascination of mesmerism that still held the learned classes of Holland in its spell. (1815–1830) practically complete silence reigned in the former country regarding the subject of mesmerism. Though in the above-mentioned period a great number of treatises and papers in Dutch were published on the subject in the northern parts of the Netherlands, I know of only one doctor's thesis referring to somnambulism and the curative prospects of mesmerism; this was written in Latin and printed at Ghent in 1829 (6).

When Belgium had gained its independence in 1830, mesmerism suddenly started to attract the interest of philosophers, medical men and intellectual laymen. This sudden interest was probably due to the attention mesmerism had received in France about that same time, for in the latter country several medical Commissions had been set up to investigate the claims put forward for the healing powers of the magnetic fluid and the remarkable and wonderful phenomena it allegedly produced in the induced somnambulistic state.

LAFONTAINE IN BELGIUM

Between 1830 and 1840 mesmerism in its somnambulistic expression was a much discussed topic at Brussels and a few other large Belgian towns. It seems that mesmeric therapeutics were also actively applied throughout the country. According to Dr. D. Cremmens (7) he had been busy magnetizing his patients from 1833 onwards, achieving a large number of cures with this kind of treatment. Reading through the several descriptions he gives us about the cases treated by him, it becomes clear that most, if not all, of his patients showed typical hysterical symptoms or other nervous complaints that, as we now know full well, react very favourably to treatment by suggestion. Though Cremmens mentions various somnambulistic cases induced by his magnetic manipulations, in which there apparently existed a complete rapport between mesmerist and magnetized subject, he does not tell us about a single instance of what we today would term a paranormal phenomenon (e.g. extrasensory perception). Cremmens' medical treatment consisted of presenting patients to one of his somnambulists (he himself acting as mesmerist) and ordering the latter to diagnose the patient's illness and prescribe medicine in order to effect a definite cure. All this points to the typical mesmeric procedure in accordance with Puységur's system that had become generally accepted in most countries where mesmerism was being practised. It is further apparent from Cremmens' writings that such somnambulistic diagnosis followed by curative

prescriptions (regarded as generally effective) were considered examples of what Cremmens himself termed clairvision (clairvoyance) (7, p. 11). Whether the clairvision Cremmens described is to be placed on the same level as the paranormal phenomenon of telepathy or clairvoyance, is greatly to be doubted, especially so as we cannot now ascertain whether the diagnoses of the patients were really apposite, and, if so, whether all measures had been taken to prevent the somnambulist from obtaining sensory cues helpful in giving the correct answers. Cremmens also organized public demonstrations, somewhat in the same fashion as modern mediums giving public psychometric sittings, etc. These séances, however, had nothing to do with spirit communications but were all directed towards therapeutic purposes, his somnambulist diagnosing illnesses and giving curative indications. There is little doubt that such gatherings had great propaganda value, giving the lay public the impression that somnambulists were far better acquainted with questions of health and disease than the most learned medical doctors.

It was about this time, i.e. during the decade 1830–1840, that one of the foremost mesmerists or magnetizers of the last century, M. Charles Lafontaine, came in contact with the procedures of animal magnetism at Brussels, and was soon to become himself one of those persons who put their mark on European somnambulism and the various types of paranormal phenomena believed to accompany it. When Lafontaine became known as a mesmerist of uncommon powers, he travelled extensively throughout Europe, accompanied by a lady somnambulist said to possess extraordinary faculties, some of which appeared to be of a paranormal nature. Here, however, we shall have to keep to Lafontaine's experiences in Belgium, leaving it to other writers to follow him in the countries with which they deal.

In his book (8, i, p. 47) Lafontaine relates how, after having received an excellent education in France, he accompanied a highly placed aristocrat to Brussels in 1835 in order to transact some business in the Belgian capital. It was here that Lafontaine became acquainted with M. J. B. A. M. Jobard (1792–1861). Jobard had received an excellent education and was noted for his services to Belgian industry, being appointed the director of the Musée de l'Industrie. His activities included the founding of the Belgian newspaper *Le Courrier Belge*, and his interests in animal magnetism and Spiritualism were widely known and commented on.

When Lafontaine arrived at a certain club of magnetizers he met there about 30 persons standing around a young girl who was being put into the somnambulistic condition by a Dutch physician. The mesmerist doctor, observing Lafontaine's apparent scepticism, turned to the newcomer and requested him to ask the somnambulist, lying on a couch with her eyes closed, to name the objects he had in one of his pockets. The mesmerist assured him that the girl, who was in a condition of trance at that moment, would certainly know what he was carrying in any of his pockets. Not believing for one single moment what he was being told but purely out of politeness, Lafontaine consented to try out the proposed experiment and indicated his coat pocket as the one to which the somnambulist should direct her clairvoyant faculties. Thereupon the somnambulist took hold of his hand, and without hesitating even for a fraction of a second she announced: "You will find in that pocket a five francs piece, one of two francs and a ten centime coin". She was absolutely correct (8, i, p. 47).

Lafontaine now started to accuse M. Jobard, the gentleman who had introduced him to the mesmeric circle, of making a fool of him and of informing the mesmerist beforehand what he was

carrying in his pocket.

The mesmerist, however, at once intervened and suggested that Lafontaine should try another experiment. The suggestion was that he should stand aside from the company present in the room, write a few words on a piece of paper which he then was to fold in such a way that the writing would remain invisible to anybody looking at it. He should then hand the folded strip of paper to the somnambulist, who would at once read what had been written without the use of her eyes. To tell the truth, he was not in the least interested in the proposed experiment, especially as he still believed that he was going to be the victim of some adroitly applied illusionist trick. Still, as he was not prepared to act in another man's house in a boorish way, he consented to play his part in the new experiment. So he wrote some words on a piece of paper that he rolled into a little tube. With this paper he approached the somnambulist and placed one end of the rolled up paper in her hand, holding on firmly to the other end. He then begged her to inform him what was written on the scrap of paper. Directly after he had uttered his question she answered: "You pay me compliments; you say I am pretty".

He told her that he was in no way satisfied with her answer which had not been accurate. He once again repeated the question and urged her to say exactly what words he had put down on the paper. "Well then," she said, "the words are: you . . . you are pretty." Her answer gave the exact wording. He was dumb with amazement, for he had left the company to write the words all by himself, and certainly nobody could have guessed what he

had written (8, i, pp. 48-49).

The above mentioned experiences greatly stimulated Lafontaine's interest in animal magnetism, so that he started to study mesmerism under the guardianship of the Dutch physician. One day he requested the doctor to magnetize him. Lafontaine appeared to be such a good subject that after only a few "passes" he fell into the somnambulistic state. When he awoke and found that he had been in a trance, he became strongly convinced of the truth of the vital magnetic fluid, believing that only by the cause of some physical agency (animal magnetism) could the doctor have induced the somnambulistic condition in him (8, i, pp. 50–51). Thus he now resolved to devote his life to the study and practice of mesmerism, convinced as he was that the vital fluid was an enormous boon to mankind and that only mesmerism was able to cure and heal all those complaints and illnesses against which the medical science of his days stood powerless.

Lafontaine's confidence in his own magnetic powers was greatly strengthened a short time afterwards when he succeeded in relieving a middle-aged man from the severe rheumatic pains he was suffering. The man's pains vanished, it is said, in the course of only

one treatment in one sitting.

From the above it may probably be concluded that at that time mesmerism and the so-called manipulation of the vital magnetic fluid was mainly directed towards curing the sick. The importance of mesmerism had principally to be sought in its therapeutic usefulness. The unusual phenomena believed to emerge during the somnambulistic condition, such as extrasensory perception, were not the first thing people were looking for. Mesmerists regarded such somnambulistic phenomena as of secondary importance, and only useful for propaganda purposes to convince the sceptic of the existence of the remarkable vital magnetic fluid and its healing properties. The mesmerists believed that their theories of the all-penetrating and all-present animal magnetism solved practically all medical, philosophical and even theological problems.

There seemed to be various kinds of magnetic treatment. The two principal ones were the following. First, the mesmerist in some way, for instance by making "passes", by concentrating the fluid in water the patient had to drink, etc., conducted the vital fluid to the patient's body. Second, the mesmerist put a trained subject to sleep, leaving it to the entranced somnambulist to diagnose the complaints from which the patient was suffering and to prescribe medicine and therapeutic measures. It also often happened, if he could easily succeed in doing so, that the mesmerist directly mesmerized the patient and put him in the somnambulistic state, ordering him to diagnose his own illness and prescribe the necessary medicines.

Lafontaine started his mesmeric career by applying the vital magnetic fluid, of the existence of which he had become thoroughly convinced, for therapeutic purposes. However, by a mere coincidence he came in contact with his first good somnambulistic subject who was the impetus that put Lafontaine on the road towards carefully developing those remarkable somnambulistic phenomena in order to convince the sceptical public of the reality of the vital fluid as a natural fact in nature and of the greatest importance to human health and spiritual development. In his book (8, i, pp. 57–60) Lafontaine tells us how he encountered his first somnambulistic subject.

One night, while he was sauntering through Brussels after darkness had fallen, he suddenly heard a woman screaming for help. Running in the direction of the shouting, he found a woman being attacked by two men. He at once went to her assistance and fought the men away from the young woman; after a few moments the men took to their heels, and he then accompanied the girl to her home. As she appeared to be very much upset, he tried to calm her by making magnetic "passes" over her head and shoulders, and after he had been successful in calming her to some extent, he went home.

The next morning he returned to the house of this woman, whose name was Marie, and magnetized her again. She very quickly fell into a somnambulistic state, and while in that condition suddenly exclaimed: "Hallo, that's funny, here are my two cousins coming to visit me; they are just now coming up to the front-door". And indeed, Marie had hardly finished speaking when Lafontaine heard the front-door bell ringing. This fact of spontaneous clairvoyance (lucidité à distance is the term used by Lafontaine) had greatly perplexed him and in fact he was completely dumbfounded.

After a while Marie requested him to awaken her. When she awoke from her somnambulistic condition she was greatly aston-

ished to find her two cousins, who had come all the way from Nivelles (a little Belgian town 18 miles from Brussels) on a surprise visit. The latter, too, were very much surprised to find Marie

just awaking from her sleepy condition.

Happy at having found such a good subject, Lafontaine continued treating Marie with animal magnetism, in order to cure her of severe nervous attacks to which she was liable. Gradually these began to subside under the influence of Lafontaine's mesmeric therapeutics. In the meanwhile he noted several instances of what appeared to be telepathic, clairvoyant and precognitive occurrences

(8, i, p. 65).

This case might have been a case of paranormal cognition or extrasensory perception. On the other hand one should not lose sight of the possibility that Marie in her hypersensitive condition in the somnambulistic state could have heard her cousins' footsteps outside on the pavement and recognized them as belonging to her cousins. We can remark the same circumstances when a dog shut up in a room may perceive the arrival of its master a good time before the inmates of the house are aware of it. It is well known in hypnotic investigations that in the trance or somnambulistic state a hyperacuity of the senses is induced that may suggest that paranormal faculties are at work, although in fact the phenomena witnessed remain within the domain of the "normal".

Another incident with the same subject is of some interest. Sometimes when on his way to Marie, Lafontaine bought a book at some bookseller's shop, a book of which he knew only the title at the moment of buying. Hardly had Marie been put into the somnambulistic condition than she named the title of the book just purchased, its author, and what was still more remarkable, she said whether it was a good or a bad book and whether it would interest Lafontaine or bore him. Then, upon his request and without her having touched the book or before the book had been opened in her presence, she read a sentence on a certain page indicated and of which he did not have the slightest knowledge, having himself not read the book or even having opened it (8, i, p. 65).

Lafontaine stated that he obtained from Marie all kinds of information about what his friends were doing, what they experienced and what was happening in their entourage. He had often the greatest pleasure in seeing his friends become completely dumbfounded when he related to them what they had done or said or

even thought in the greatest secrecy a short time before.

The same thing happened one day when he said to M. d'Ambruménil, a former court official to Charles X of France: "You passed the night in a house where you should never have gone. You will be forced to leave Brussels within two days from now." In fact, Ambruménil had to leave Brussels for the Netherlands in a hurry owing to an ill-fated duel at which Lafontaine was present in the capacity of a witness and second. All this Marie had announced

some days in advance (8, i, pp. 66-70).

Lafontaine goes on to remark that Marie's somnambulism was in a high degree of a clairvoyant (lucide) nature. She could with the greatest ease perceive what happened in rooms other than the one in which she found herself. This also was the case with events happening outside her home. One day, for example, she correctly announced to Lafontaine that a client was approaching her house and was going to order a suit of clothes to be made by her father who was a tailor (8, i, p. 72). Lafontaine also relates how he was able to keep Marie in a somnambulistic condition during eight days at a stretch without this abnormal state doing her any harm (8, i, pp. 72–73). This is the last we hear about Marie. After these Brussels adventures Lafontaine soon returned to Paris, where he seems to have continued his mesmeric practices, working as a propagandist for the wonderful all-healing magnetic fluid, producer

of paranormal phenomena.

If we can accept Lafontaine's descriptions of Marie's apparent paranormal faculties at their face value, there can be little doubt that Marie was a highly gifted psychic who could compete with the best of our clairvoyant and psychometric mediums. So far as we know, her paranormal perceptions remained in the domain of the mental and comprised telepathic, clairvoyant and precognitive impressions only. We never read about occurrences of a physical nature (psychokinesis, apports, materialization, etc.), so outstanding in the reports of the later Spiritualistic mediums. is another fact to be noted about these mesmerized somnambulists of the first half of the nineteenth century. Contrary to what happened to the trance and other so-called mediums of the Spiritualist movement starting and expanding during the latter half of the last century, the somnambulists hardly ever gave instances of communications alleged to be coming from deceased persons. Paranormal phenomena produced by these somnambulists generally manifested themselves as the result of the inherent faculties of those in the somnambulistic condition, while the later trance-mediums (somnambulism and trance may be regarded as physiologically the same thing) were believed to be only the intermediaries supplying the spirits of the deceased with the energy they needed to produce paranormal phenomena. As a great many somnambulists developed into trance-mediums, acting as mouthpieces to the surviving spirits of the dead directly after the tidal wave of modern Spiritualism had swept over their various countries, it may be confidently assumed that the spiritistic tendencies of the somnambulistic utterances and manifestations were induced by suggestion, generated by the spiritistic conceptions which had become widespread.

Lafontaine's several somnambulists, with whom he toured Europe demonstrating their paranormal faculties and making propaganda for the vital magnetic fluid, did not seem to have been contaminated by the Spiritualistic infection, for we do not hear that their manifestations ever took on the form of spiritistic communications. It is possible that Lafontaine himself remained immune to Spiritualistic ideas and clung to his magnetic theories to explain the paranormal manifestations which some at least of

his somnambulists were believed to produce.

After having passed one or two years in Paris, Lafontaine returned to his beloved Brussels in 1839, where he renewed his friendship with Jobard, who introduced him to a group of influential mesmerists. It seems that several of these mesmerists gave public demonstrations to make known the remarkable powers and salutary value of the magnetic fluid. Hardly anything about these public performances and the outstanding results obtained there is mentioned in the papers and the periodicals of the time at our disposal. Lafontaine gives high praise to a member of the above-mentioned group, the landscape painter M. E. Montius, who, though of poor constitution, possessed enormous magnetic powers which very much surprised Lafontaine (8, i, p. 84).

It was also in the course of this same visit to Brussels that Lafontaine made the acquaintance of M. Victor Idjiez, the founder and editor of the mesmerist journal Le Magnétophile (9) to which Lafontaine contributed some articles. It was this M. Idjiez, who in Lafontaine's opinion was a very intelligent man, who persuaded him to accompany him to Mons and there conduct a number of public séances. The box-office receipts of these public demonstrations would be for the benefit of the victims of the fires that had raged at the neighbouring villages of Horloz, Stockein, etc. Some of the results of these Mons sittings were described by Lafontaine as follows, and indicated that M. Idjiez, also, was a powerful and

successful mesmerist.

At one seance that took place in the large hall of the town hall of Mons, which the municipality had most kindly put at their disposal, M. Idjiez presented an excellent somnambule to the numerous public present. The subject was a young girl, the daughter of the military hospital's hall-porter in the town of Mons. appeared that M. Idjiez had developed in this girl the faculty of clairvoyance to such a high degree that during the sitting she was able to perceive correctly the time marked on the watches of various persons present. Even when the hands had been changed at random she was able to indicate with exactness the time a certain watch showed. She also could read correctly the contents of two billets, written on the spot in the course of the séance. The pieces of paper had been doubly and triply folded so that not the least sign of lettering could be seen, and all precautions were said to have been taken to avoid the somnambulist from knowing in the ordinary way what had been written (8, i, pp. 84-85).

How far the case described above can be accepted as a clear example of extrasensory perception cannot now be decided with any degree of certainty. Significant details are so scantily given that a correct judgment in this matter is impossible. If it had been during the performance that M. Idjiez had for the first time discovered clairvoyant faculties in the girl, then he would have had no time to train her to react to a code taught her to distinguish between the various positions of the watches' hands. However, any explanation on the hypothesis of a code would become untenable if the mesmerist did not have any knowledge of the time a certain watch indicated. The same difficulties arise in the case of the billet-reading. Was the scrap of paper first handed to the mesmerist and did the latter put it in the hands of the somnambulist or hold it against the subject's forehead? Or did the billet-writer take the same precautions as did Lafontaine in the case above quoted when he took care to keep control over the folded billet while the clairvoyant read it? All such questions are not answered in the descriptions we possess, so that no certainty can be reached as to the authenticity of the extrasensory perception the subject is alleged to have demonstrated.

One gets the impression, however, that the subject in this sitting at Mons met M. Idjiez for the first time at the séance, and that her clairvoyant performances greatly impressed the audience who may well have known the background of the girl in a small town like

Mons, just over a century ago.

There seems to have been a lively interest among the educated

classes at Mons in the phenomena of animal magnetism. In the next case the subject appeared to have belonged to the higher

classes of Mons society.

Lafontaine wrote that after having been present at a mesmerist's sitting at Mons on 1 July, 1839, and on her way home, Mme Magauden,¹ a young married woman of 19, fell into a somnambulistic condition. In that state she could divine all kinds of hidden and wrapped objects put in her hands or applied to her forehead. She could perceive the words "Idjiez" and "thélésie" penned on a piece of paper and presented to her in the middle of two opaque pieces of blank paper. If one held a piece of gold in one's closed fist and approached her with the closed fist she experienced a strong feeling of repugnance. If instead of gold it was a piece of copper or an object made of that metal, the somnambulist's repulsive action was not so intense as with gold. Of all the metals, only silver gave her an agreeable impression.

When a closed box was placed in her hands she was able to say in a few moments that a ring of enamel with a dog's head imprinted upon it could be found in that box. The statement was correct. For the second time the same box was presented to the young woman. But now she remarked that the box contained a small ring belonging to her sister; this, too, was the correct answer.

It seemed as if she was able to see with her fingertips, for all the time her fingers were moving about during the experiments. Now and then she irritated her fingertips by scratching them with her thumbnail. When asked why she did this, she replied that it

was done to wear out the skin of her fingers.

In the somnambulistic state she was able to perceive a word or figures written on a piece of paper far away from her; she also correctly indicated two portraits and a miniature locked in a box. She could also say exactly what movements a person made who was completely outside her normal sight. All this and several other remarkable experiments Mme Magauden performed in the somnambulistic condition, and every time with excellent results.

Lafontaine stated that a report of all the remarkable performances and mesmeric demonstrations given by the somnambulist was drawn up by Mme Félix de la Motte, who was Mme Magauden's mother and herself a distinguished writer and literary critic. This report was entitled: "Perceiving without the use of the eyes or of touch; perception through thick walls separating one floor from the other. Mind reading [connaissance des pensées]; Automatism

¹ Sometimes spelt Mahauden.

or 'rapport' of a physiological nature between mesmerist and his subject".

Being associated with the Academy of Hainaut, Mme de la Motte read this report to the members of the Academy. After having listened in silence to what the lecturer had to say, the

members' astonishment was extreme (10, p. 467).

Mme Félix de la Motte and her daughter, Mme Magauden, were well-known and respected persons belonging to the higher Belgian society circles. The former had built up for herself an excellent literary reputation as a poetess and playwright, and there can be no reasonable doubt that the phenomena occurring in Mme Magauden's somnambulistic state happened as described, and that Mme Magauden had suddenly developed into an excellent subject for the production of paranormal phenomena. This is, however, the only time we hear about Mme Magauden as a highly gifted paranormal subject. Further experiments were not conducted with her, probably because as a lady of the lesser aristocracy and of independent means there was no chance for the mesmerist to associate himself with her and give public demonstrations of her paranormal gifts.

It appears that during the period here described (1830–1840) M. Lafontaine and M. Idjiez were strong and successful mesmerists. M. Idjiez (9, 11, 12) was an intelligent and well-educated man, very much interested in the phenomena of animal magnetism, "spiritual" phrenology, Egyptian occultism and the like, all of which trends of thought he tried to blend together. Although he worked and flourished in this period, justly to be called the Belgian golden age of mesmerism, and must have mesmerized hundreds of people, apparently only one or two were said to become highly gifted paranormal subjects. This fact seems to suggest that producing the somnambulistic state by mesmeric "passes" and such procedures common to the magnetic practices of the first half of the nineteenth century does not necessarily mean at the same time that the thus mesmerized subject was more apt to produce paranormal phenomena than persons not so treated. It seems that during the most popular period of animal magnetism in Belgium (and the same applied in what happened in the neighbouring country of Holland) paranormally highly gifted subjects remained relatively rare. Just as in the Netherlands, enormous numbers of persons must have been publicly or privately mesmerized in Belgium during the decade following the latter country's independence. Still, though there thus existed every opportunity to show

the effectiveness of the magnetic procedures and to incite the treated subjects to produce paranormal phenomena, the paranormally gifted remained extremely rare. If such a subject was discovered, this generally happened in a kind of outburst, an eruption of the paranormal at the very first time the somnambulistic condition was induced. There was no gradual development of the paranormal gifts in the course of a shorter or longer series of magnetic sittings. Such sudden surfacing of the paranormal faculties seemed to indicate that these faculties were there all the time latently present in that special subject, and that the passing into the trance or somnambulistic state (brought about by whatever procedure) only lifted, so to speak, the lid off Pandora's box of paranormal gifts.

The mesmerists of the time were rather quickly satisfied regarding the unusual, "supernatural" or paranormal character of the phenomena their subjects were able to manifest under their mesmeric influence. A great number of remarkable phenomena, however, considered by them as watertight proof for the "miraculous" nature of the magnetic fluid would today be classified outside the paranormal and relegated to the field of "normal" psychology.

One of these so-called wonderful effects of the magnetic fluid was the anaesthetizing of healthy and sane persons, simply by making some "passes" or similar procedures. The reverse, i.e. transferring pain from one person to another in an instant, was also one of those remarkable feats of which the magnetic fluid was considered capable. In those days very little was known about the effects of suggestion, so that it is not to be wondered at that when the painter-magnetizer M. E. Montius (13) succeeded in transferring a severe pain in the shoulder in one of those present in his rooms to five other men also visiting him at the same time, this fact made such a deep impression that M. F. Lebrun, one of the gentlemen present at the seance, wrote an article (L'Emancipation, 4 August 1838) praising in glowing terms the wonderful effects of the vital magnetic fluid. Of course, such a transference of pain and other sensations from one to another, plainly by suggestion exercized by a mesmerist of repute, has nothing to do with the paranormal as now conceived. But for the investigators of mesmerism living more than a hundred years ago such transferences of pain, the anaesthetizing of limbs, producing the cataleptic state, etc., were as miraculous as purely paranormal phenomena.

As we have said, one of the first prominent men to be interested

^{1 &}quot;Une Expérience de Magnétisme. Transmission de douleurs d'une personne à une autre."

in animal magnetism in Belgium was M. Jobard, the man who introduced Lafontaine to the circle of mesmerists under the leadership of the Dutch physician who astonished Lafontaine with the clairvoyant phenomena of his somnambulist. M. Jobard, too, seems to have experienced the rare occurrence of observing the sudden outburst of paranormal phenomena during the somnambulistic state. The case Jobard describes concerns a boy of 15 years whom he magnetized and who allegedly was able to produce clairvoyant phenomena. In one of his books (10, p. 463) Du Potet states that towards the end of 1836 M. Jobard was on a short visit to Verviers (an industrial town in the east of Belgium) where he met two engineers, M. Houget and M. Teston. One evening he magnetized M. Houget's son in the presence of his parents and his The boy very soon fell into a somnambulistic condition and quickly started to show that he was in the possession of what seemed to be astonishing clairvoyant gifts. Having been blindfolded, he could read print with great rapidity and accuracy. M. Teston, who was also present, remained incredulous, so that he went up to the boy and pressed his fingertips to the dinnernapkin which, folded in eight, was tied round the boy's eyes without, however, interfering with the correct descriptions of the percipient. A piece of wood was even held between the boy's blindfolded eyes and the objects presented to him for description, but his perception remained undiminished. Without any faltering he went on correctly stating what objects were presented to him: "a woollen sock with two needles stuck in it; a German book, from the pages of which he read two passages; my Berquin [one of the boy's schoolbooks]". M. Teston then took out his watch and held it behind the boy's head, and asked him: "What time is it?" "Eight o'clock and eight minutes", replied the boy, which was correct. Du Potet adds that he had obtained the details of this incident from MM. Iobard and Teston themselves.1

The above case gives us one of those typical, though rare instances of a supposed sudden uprush of paranormal phenomena when the subject is put into the somnambulistic state. Of course, we are now not in a position to be absolutely certain that the boy did not cheat and simulate clairvoyant or telepathic phenomena. That those present at the sitting were aware of the possibilities of fraudulent "peeping" can be noted by the behaviour of M. Teston, who by pressing his fingertips to the bandage covering the boy's eyes, or by holding a board between the object to be perceived and

¹ A report was also published in the Le Courrier Belge for 8 June 1838.

the blindfolded eyes, tried to cut out this conscious or unconscious peeping. He also tried to avoid the normal use of the boy's eyes by holding his watch to be read against the boy's occiput. Even viewed critically, I feel that the probability that young Houget did manifest paranormal gifts during the experiment is pretty high, though of course we can never be sure. This is the more true because the published report related events of about two years previously and notes were not made directly after the experiments. On the other hand, we have the testimony of the critically minded M. Teston, assuring Baron du Potet that he was very much impressed by what he himself had experienced during the boy's somnambulistic state.

M. Jobard himself seems to have been a very firm believer in the clairvoyant powers of mesmerized subjects. He had written to the Brussels daily papers suggesting, in reference to the controversy raging at the time in France regarding the reality of extrasensory perception and the possibility of inducing this by mesmeric manipulations, that the Paris Royal Academy of Medicine should forward to the Belgian Royal Academy of Sciences at Brussels a porcelain or metal tube, made in one solid piece, and that a certain object be inserted in this tube, the name of which was known only to the experimenters in Paris. The tube, furthermore, was to be well packed in paper or cardboard covers and then should be put into the hands of M. Jobard, who would return it completely intact after having designated (presumably with the help of one of his mesmeric subjects) what object the tube contained (10, p. 465).

As far as I am aware, M. Jobard's proposal was never adopted

and the experiment did not take place.

It was about this time (1839) that Lafontaine experienced a case of what some parapsychologists have termed "travelling clairvoyance". If the facts be truly given, we have here a good case of paranormal cognition. During his sojourn at Brussels in 1839, Lafontaine stated, he mesmerized the sister of Mlle Jawureck, the well-known opera singer. When put in the somnambulistic condition she requested him to allow her to be sent to Mons. When she was thus transported (in spirit) she suddenly cried out: "O, blood! blood!" and then went into frighful convulsions, so that he was forced to calm her. When she recovered somewhat, she transferred herself again to the city of Mons, and he then understood, piecing together words and pieces of sentences she uttered sobbing and crying, that an officer with whom she was well

acquainted had been forced into having a duel and had been severely wounded by one of his intimate friends, a brother officer in the same regiment.

The next morning the lady in question received a letter dispatched from Mons, informing her about the duel and begging her to set out for Mons as quickly as possible (14, pp. 149–150;

also 15, p. 285).

It is not clear from the description whether the somnambulist claimed to be present at the duel itself and perceived what happened to her intimate friend at that very moment. It looks as if she obtained a general impression of the event and the unhappy results to her friend. However this may be, some doubt also remains as to the clearly defined nature of the paranormal experience. For example, did she have some notion from information received in a normal manner of what was going to happen in Mons? If not, why then did she request Lafontaine to transfer her to Mons during the somnambulistic state? Was this to allow her to get an impression of what was happening to her friend or lover? She must have been uneasy about something going on in Mons, otherwise there cannot have been any sense in asking to be projected clairvoyantly to Mons. We cannot answer the question about the case's paranormal character if we do not know exactly what Mlle Tawureck's sister was aware of regarding this duel and the parties involved. If she had been informed by her friend or somebody else that there had been a quarrel and a duel had been agreed to, on such and such a date, her anxiety for her friend's welfare may well have given her the impression during the somnambulistic condition that he had been wounded, etc. We cannot be sure. some might give her the benefit of the doubt and assume that we have here a case of travelling clairvoyance, the only single case of the kind I could find in Belgium.

As has been said, the decade 1830–1840 can be justly styled the Belgian golden age of animal magnetism. During the latter half of this period several daily papers (L'Indépendant; Le Courrier Belge; L'Émancipation) published articles on the subject. Some medical men started to treat their patients with mesmerism, claiming that the vital fluid had worked wonderful cures in cases believed to be hopeless. The general public began to be seriously interested and started to attend the public sittings of professional mesmerists who demonstrated their subjects in the somnambulistic states and showed them capable of all kinds of uncommon performances. On rare occasions there would, perhaps, occur some phenomena of a

truly paranormal nature, comparable to those we now term extrasensory perception. No mention, however, is ever made of what during the modern Spiritualist movement would be termed physical phenomena. There may have been some spontaneous cases of physical phenomena (poltergeist phenomena, rappings, etc.) in Belgium at the time, but no such cases were reported in connection with mesmerically induced somnambulism. As is shown in the cases quoted above, paranormal manifestations were of a mental character and included all the known varieties of paranormal cognition.

In 1836–1838 Professor H. Ahrens, who lectured on psychology at the Brussels University, published a book (16) in which a whole chapter was devoted to animal magnetism and mental alienation. Ahrens' point of view is that the somnambulistic state is indeed an abnormal condition, without however being pathological. Spontaneous and artificially induced somnambulism may be regarded as a special variety of the waking state, with only this difference that in the somnambulistic condition the spirit (soul) and the body are more independent one from the other, each of the two entities returning to their own specific characteristics. This means that the spirit can now more easily manifest its natural faculties, such as extrasensory perception in all its different varieties, diagnostic knowledge and insight to cure diseases, etc. Ahrens also accepts the existence of the astral body as a kind of intermediary between the spirit and the material body. He also points out that the intuitive knowledge which the spirit manifests during the somnambulistic state brings us directly into contact with the reality of things. For that reason the somnambulist can supply us only with facts and not with theories concerning the essence of things.

ELECTRICAL AND GALVANIC THEORIES

At the beginning of the following decade (1840–1850) public interest in the subject was still strong but the practical application of the "vital fluid" for medical purposes was on the wane. This rejection of mesmerism by medical men was probably due to the disappointment felt at the inconstancy of the mesmeric results. In some cases it was a success and in many others it appeared to fail completely though the malady being treated was the same. Twenty years earlier this same process could have been observed in Holland. After the great mesmeric boom in the years 1811–1818 in the latter country, with many prominent medical men proclaiming animal

magnetism as the most important discovery of all times and indeed a panacea for all existing complaints and illnesses, a reaction set in towards 1820 as it was found that mesmerism as a therapeutic agency fell far short of the high expectations this kind of treatment had evoked. This has caused the greater part of the medical profession in the Netherlands to regard mesmerism with suspicion ever since. This same course of events could be noted in Belgium, when about 1845 the popularity of mesmerism was beginning to fade.

Though the therapeutic use of animal magnetism was on the wane, theoretical interest in explaining the uncommon phenomena emerging during the somnambulistic state was growing in philosophical circles. Such an interest was shown by M. N. E. Tandel (17), who read a paper on the subject which was published by the Belgian Royal Academy. His thesis was a refutation of Maine de Biran's theory of two independent egos in one and the same human individual, a conception believed to be based on evidence derived from conditions observed during sleep, dreams and somnambulism. It was thought that there existed no connection between the ego of the waking state and that ego emerging and manifesting itself during sleep or the somnambulistic condition. The often-observed phenomenon that the somnambulist did not remember anything of what had happened during the trance or somnambulistic state greatly strengthened and supported this dual conception. Tandel, however, contended that there did exist an interdependency or connection between the waking state and that of somnambulism. He pointed out that the laws of association were absolutely the same during somnambulism and waking life. In support of his contention. Tandel mentioned the fact that in 1828 he was present at a sitting in the course of which the well-known Dutch mesmerist, P. G. van Ghert, put the subject in a somnambulistic condition. He ordered the subject, a lady, once in this state, to remember when she awoke every single thing that had happened during her trance as soon as he, van Ghert, named the number seven. When the subject awoke and van Ghert said "seven" she at once remembered every event and all the conversation occurring during the state of somnambulism. According to Tandel this proved that there really exists only one ego and that the memories of the somnambulistic ego and the waking stage ego are to be considered fundamentally one.

In his paper Tandel did not once mention any paranormal phenomena manifesting during the somnambulistic state. He

seems to be concerned only with normal psychological factors coming to light during the mesmeric condition. Whether he himself ever experienced truly paranormal phenomena in the course of his mesmeric studies, we cannot say.

The decade under discussion in some respects brought about a shift towards favouring more natural explanations of the observed mesmeric phenomena. The most prominent Belgian writer on the subject was the priest (later he retired from Holy Orders) the Comte de Robiano, a man of great erudition and a polyglot of distinction. In his book on the subject (18), running into several editions, he tried to defend animal magnetism against the antagonism of a great many high functionaries of the Roman Catholic Church who considered the mesmeric practices and the alleged supernatural phenomena of somnambulism (telepathy, clairvoyance, etc.) of direct satanic origin, and therefore to be forbidden. Robiano, however, contended that all phenomena observed in mesmeric states were to be regarded as natural effects and that these were simply the result of galvanic (electrical) currents active during mesmeric manipulations. There was nothing supernatural, divine or satanic about the much talked of magnetic fluid; it was but another word for galvanism, and all mesmeric phenomena, common or uncommon, were based on and could be explained in terms of galvanism (toti et soli definito) by a galvanic action (18, p. 6).

Robiano declared himself a staunch disciple of the French physician Petetin who, during the last two decades of the eighteenth century, attempted to explain the somnambulistic and other mesmeric phenomena by assuming that everything was based on electrical action influencing the nervous system (19). Robiano also believed this to be the case and therefore he suggested that mesmerism or animal magnetism should in future be named La Névrurgie, for the latter term drew attention to the fact that the nerves were principally concerned in producing all the mesmeric phenomena, which were, therefore, derived from natural (electrical) causes and hence also purely natural. As long as these faculties and powers were applied for the good of humanity there should be no reason whatever to forbid people to be present at mesmeric sittings or to seek the assistance of mesmerists and their somnambules to cure illnesses.

One of the reasons why Robiano adhered firmly to the belief that the vital fluid was nothing other than electrical in nature was that the application of the so-called galvanic rings acted as well as, or even better than living mesmerists in inducing the somnambulistic condition. Robiano wrote (18, p. 23) that these galvanic rings were imported into Belgium from Great Britain in great quantities (presumably about 1842), and advertised as an undoubted panacea for every possible complaint and illness. If such a ring was "charged" by making a few passes over it, and applied to a subject already used to being put into a somnambulistic sleep, it would take effect immediately. If, on the other hand, the ring was used in the case of a person who had never been magnetized, it would at once have the desired effect by bringing about the somnambulistic state. According to Robiano, who experimented with the rings, these worked more quickly and were more effective in producing somnambulism than were well-trained mesmerists.

Other metals in certain combinations, but without needing to be "charged" beforehand by making a few passes over them, Robiano found to be as effective as the imported galvanic rings. If the subject held in one hand a piece of zinc, and in the other a piece of gold, the result would be the same, for the subject would then quickly fall into a somnambulistic trance. It was not necessary in such cases to have a person present who could act as a kind of magnetic or galvanic agent since the subject, holding a certain efficient combination of metals in his hands, would automatically drop into the somnambulistic state. The same result could be obtained if the subject put his feet on metal plates or sheets.

Even from a distance the metals were effective in producing somnambulism if the metals were connected with the subject's body by chains, rope, etc. The influence of the metals on the human body was always, in Robiano's experience, instantaneous and infallibly the same, never even for a single moment changing in its effect or results. Robiano, who seems to have experimented extensively with certain subjects, was absolutely convinced that his observations in connection with the influence of metals as a causative factor in producing the mesmeric phenomena were so exact that, in his opinion, scientific deductions could be based on them without any serious objections. Not only could Robiano induce somnambulism in his subjects by applying certain metal combinations to their hands or feet (18, p. 26) but he could also promptly awake them from the deepest somnambulistic state by holding a piece of coal under their noses. He remarks (p. 27) that when a piece of coal is placed on a paralyzed arm or leg, or on limbs stiffened to a degree to make them resemble logs of wood, or on a body in a complete and serious condition of catalepsy (all these

conditions presumably the result of mesmeric or hypnotic manipulations) the abnormal condition will at once be eliminated and the limbs and body of the subject will instantaneously return to normal. Robiano further says that a piece of coal simply applied to the subject's nostrils will promptly awaken him when in a state of clear-cut somnambulism.

Robiano mentioned, in the course of his discussion, that he was able to make himself understood by the somnambulist who was completely isolated (not even listening to the orders of his mesmerist) by speaking to him directly in front of the subject's solar plexus

or to his hand with the fingers held together.

Robiano was convinced that the wearing of copper and zinc belts around the body could cure all kinds of complaints and illnesses, such as chronic headaches or neuralgic pains. The therapeutic value of such metal belts was even greater than that of the mesmerists who claimed to cure the various diseases by virtue of the vital fluid.

It is clear that this metal therapy and the various and constant reactions of Robiano's subjects encouraged and reinforced Robiano's own preconceived belief in the validity of his galvanic or electrical hypothesis, namely, that all mesmeric phenomena originated in galvanic currents influencing the nervous system. It is also clear that suggestion of these preconceived ideas of what was to happen during the somnambulistic state led Robiano's subjects to react only in the way they believed would please their mesmerist. Thus the subjects' reaction and behaviour conforming in every way with Robiano's ideas on the matter again gave extra support to his theories which he found confirmed in this manner.

This whole process of suggestion and counter-suggestion on which Robiano's firm conviction regarding the galvanic origin of the somnambulistic and mesmeric phenomena was based may be looked upon as a beautiful example of what Ehrenwald (20) has termed doctrinal compliance, that is to say mutual interplay between experimentalist and subject, generally of an unconscious nature, that is often encountered in the research connected with animal magnetism, modern Spiritualism, psychical research, etc.¹

As we have already seen, Robiano had a natural explanation for what many highly placed dignitaries of the Roman Catholic Church in those days considered proof of a satanic influence to

¹ Some of de Rochas's experiments and conclusions referring to the so-called exteriorization of sensibility have certainly been contaminated by the above-mentioned process.

which the somnambulistic subjects were believed to be subject and which showed itself by the manifestation of alleged supernatural phenomena such as telepathy, clairvoyance or precognition (18, p. 93). For instance, he regarded clairvoyance as "a concentration of the radiation existing in our vital sphere that is brought about by the continuous intention and will-power we exert". Robiano thus favoured what we would now term a physical explanation of extrasensory perception.

Robiano may well be regarded as one of the pioneers of the electro-biological conception of mesmerism, believing that most if not all mesmeric phenomena allegedly caused by the influence of the mysterious vital fluid could just as well be brought about by a kind of electrical treatment. In the United States Mr. J. S. Grimes coined the term electro-biology in 1848 to denote somnambulism and its concomitant phenomena produced when the subject was brought into contact with some sort of electrical apparatus.

This electro-biological system attracted much attention and became quite the fashion in the 'sixties, when for instance in Holland public séances were held to induce somnambulism and all the various phenomena of animal magnetism by simply touching the subjects with some kind of apparatus purporting to generate an electrical current. Several of these electrical contrivances were so poorly constructed that there was no possibility of an electrical current being generated. Nevertheless, the effect of this apparatus on the subjects was as great as when electrical energy was being produced or when powerful living mesmerists were manipulating the subjects, thus showing the powerful effect of suggestion, a psychological factor that was hardly recognized at the time. We know, for instance, that about 1860 the apparatus used by the Dutchman de Koningh (who achieved much success in evoking somnambulism and all kinds of mesmeric phenomena with the use of his machine) was supposed to be of an electrical nature but was not even able to generate a milli-ampère of electricity. His electrobiological experiments attempting to show that animal magnetism was nothing other than electricity so greatly impressed his contemporaries that from that time the Dutch words for "to biologize" meant the same as "to mesmerize".

The following decade (1850–1860) shows but little progress in animal magnetic research and conceptions. Interest in scientific circles was waning and philosophy was turning away somewhat impatiently from the still very elusive and mysterious vital fluid which purported to be able to produce the most wonderful phenomena.

In one of his books (21) the Belgian philosopher, F. Coyteux, devotes chapter XIV to the question of animal magnetism. Coyteux's philosophy seems to have been very similar to Bishop George Berkeley's, that is to say that the universe is really not conceivable apart from mind. Matter and external things are therefore impossible and inconceivable if they are considered to have an existence beyond the circle of consciousness. Thus, in a sense, Coyteux denies that the facts of mesmerism can really be proved in a philosophical sense and that the existence of the vital fluid must be denied also. As he puts it (p. 421) "la matière n'est pas".

Notwithstanding Coyteux's philosophy, it appears that he was interested in the phenomena of animal magnetism and attended various séances at which such phenomena as eyeless-sight were demonstrated. Since he was well-educated and a highly intelligent observer, his opinions of what he observed are well worth consideration. In those cases where the somnambulist gave answers to various questions, Coyteux came to the conclusion that the replies were generally of too vague a character to be of any value; he dismissed the theory that the incredulity of the questioner paralyzed the magnetic power, since he preferred the more normal explanation that this claim was simply to avoid having to answer questions which the somnambule found embarrassing. Moreover, he stated (p. 427) that he had been present at some séances in which he suspected that the somnambule was not in the magnetic state at all and was really wide awake, interpreting various signs and so on which gave him a lead in replying to some of the questions that were asked. For example, one question that Coyteux himself asked was about his own age, to which the answer was given "about 50", but when he persisted and asked for the day of his birth the somnambule could not reply and Coyteux was told that this question was too precise and beyond the powers of the subject.

It would appear from Coyteux's account that at one or more séances eyeless-vision was demonstrated. Thus the somnambule played écarté with the eyes "parfaitement bandés". This test Coyteux thought was a failure, since there were too many mistakes and in addition he noticed that, before playing, the subject handled the cards in such a way that Coyteux thought that the possibility existed that there was the faculty of discerning the cards by touch. Not only did Coyteux think that normal processes were at work, but even that the subject had confederates who used signs which the subject was able to interpret, signs which had been arranged in advance and which, when no bandages were employed and the

eyes apparently closed, the subject was able to catch now and then at the appropriate moments. Sometimes from the way the question was put the subject might be able to guess what the correct answer should be. Generally speaking, Coyteux came to the conclusion that, from his own observations and what he knew about the subject, these professional performers were unlikely to be genuine and were simply trading on the simplicity of the public. It was true, he continued, that men of good faith existed who were entirely convinced of the reality of magnetic phenomena, but he thought that the probability was that they had become the dupes of the somnambules with whom they had experimented. Summing up his conclusions, Coyteux ended by asking, "Que de faux somnambules qui sont parvenus à capter et tromper la confiance de savants très-recommandables? Que de pièges, sur ce terrain, ont été tendus à la bonne foi."

In the latter half of the decade being discussed, modern Spiritualism started to draw the attention of the Belgian public to so-called spiritistic phenomena, such as discarnate entities believed to manifest themselves by table-tilting and certain kinds of physical phenomena, including telekinesis. It was thought that the spirits of the deceased made use of certain persons, called mediums, from whom they drew a kind of magnetic power necessary for their manifestations. There soon existed a gradual merging of mesmerism and spiritism, somnambulists turning into spiritistic trancemediums. Soon the impressive somnambulistic phenomena, which up to that time had been considered the main proof of the existence of the mysterious vital fluid, were advanced as proof of the reality of the discarnate entities and the possibility of communication between the living and the dead. It was in those days that the famous medium, D. D. Home, toured the countries of Europe demonstrating his exceptional paranormal gifts and providing propaganda for the spiritistic hypothesis to explain his remarkable mediumistic phenomena. Home stayed a few days at Brussels in the spring of 1858, after having visited the Netherlands with great success, but his visit to the Belgian capital was a failure as he was rather ill at the time and not able to produce phenomena of any importance.

During the next decade (1860–1870) we find the learned and well-known medical doctor, H. van Holsbeek, defending the value of mesmerism as a therapeutic agency for several specified complaints, principally those of a nervous origin. In his book (22) he points out that mesmerism in Belgium was known by various

names, such as zoö-electricity, electro-biology, electricity of the human body, etc. In his opinion, however, the agency active in mesmerism had nothing to do with physical energies, natural electricity, magnetism, etc. It was solely an energetic process formed by the concentration of will-power. The so-called magnetic or vital fluid was concentrated and projected by intention, will and intense desire (22, pp. 7–8). All other applied accessory measures and manipulations were unnecessary and of little or no value. He declared he was not against the use of mesmerism for a treatment of choice, and affirmed that he had come across very remarkable successes in the case of nervous disorders in women. However, he felt that in order to make treatment a success the patient should submit to the mesmeric therapy with his own free will.

According to van Holsbeek, some of the rare phenomena said to manifest in the course of mesmeric treatment are: eyeless-vision; transference of the senses, so that the subject is able to perceive with his solar plexus, tips of the fingers, forehead or occiput; prophetical divination (precognition); diagnosing illnesses and prescribing the cure; thought-transference between subject and mesmerist or with anybody else with whom the subject finds himself en rapport. The somnambulistic subject is also able to describe the character of those presented to him. Though one gets the impression on reading the book that van Holsbeek may have had personal experiences in the matter of paranormal phenomena, he declares that he never encountered such a fact in his life, though he must have had a very extensive knowledge and experience of somnambulism and other mesmeric phenomena. But on the other hand we should keep the fact in view that his conceptions regarding the frontiers between the "normal" and the "paranormal" were somewhat different from our modern ideas and definitions. For instance, he says (22, p. 14): "We believe that what is termed distant vision (les vues en distance) is simply a case of thought-transference. That is to say that the person who takes the somnambulist's hand and sends him travelling to the consultant's home, does so himself by his own The somnambulist, without going to the consultant's home, perceives that home in the thoughts and perceptions of the consultant with whom the somnambulist is in contact by touch of hand. We are of the opinion that the same thing happens in the case of precognitions (prophétisations)."

Van Holsbeek here expresses, more than twenty years before the foundation of the London Society for Psychical Research, the

supremacy of the telepathic hypothesis as an explanation of the alleged phenomena of clairvoyance and precognition. But it is clear from the way van Holsbeek expresses himself on the matter that he does not consider thought-transference (telepathy) as a specific paranormal phenomenon. One has the impression that what he terms thought-reading is regarded by him as a rare but natural and "normal" fact and nothing to marvel about. In the course of his book van Holsbeek makes some interesting remarks on the behaviour of somnambulists. He writes that the somnambulists, of whom many are women, are very much attached to their mesmerists whose orders they execute with the greatest docility and precision. The somnambulists are, says van Holsbeek, very jealous of one another. When one somnambulist hears about the achievements of another he is always convinced that he himself is far better as regards his own performances and is boastful all the time about his own wonderful achievements (p. 15).

It is a rather curious fact that (22, p. 18) in surgical operations he has more trust in mesmeric anaesthesia than in that induced by the newly discovered, but in those days still dangerous, chloroform. There is little doubt that he saw many operations being performed under what is now known as hypnosis, which suggests that operations under hypnosis were far more frequent in those days (1840–

1860) than we now realize.

In the next decade (1870–1880) scientific and medical interest in animal magnetism and its concomitant theories was generally at a low ebb. The mesmeric demonstrations were no longer attended by the highly educated classes but were now given in market squares, fairs and dubious shows where they catered for the attention of the lower and uneducated classes who were still impressed by mesmeric and somnambulistic phenomena. Mesmerists and magnetizers were still trying to win the favour of all those possible clients whose complaints and illnesses appeared to be incurable by the medical profession. By writing pamphlets and booklets and advertising their therapy by means of the vital fluid, these men attempted to draw the interest of the public (23, 24).

In 1875 a book was published in fortnightly instalments by a writer under the name of Dr. Conrad (36). This volume can be regarded as a kind of popular manual on mesmerism, the author himself being an enthusiastic supporter of the vital fluid hypothesis. He regarded the magnetic fluid as the pivot upon which all creation turned and the only single remedy for the complaints and maladies of mankind (36, pp. 1–2). In his book he gave a general review

of the history of mesmerism, together with an extensive record of all the important mesmeric phenomena, gathering and quoting most of his material from French sources. Although he expresses his own belief in all the higher phenomena, he does not mention a single example of a personal experience of such phenomena. He stated (36, p. 40) that there was no doubt that genuine clairvoyant somnambulists existed, but at the same time expressed his belief that excellent subjects of this sort were extremely rare, even going so far as to add that out of every 10,000 subjects there was, perhaps, only one thus highly gifted. He then went on to say that at the time of writing the people of Brussels were acquainted with one whose clairvoyant powers (lucidité) caused greater astonishment every day, but unfortunately he never described what the phenomena were nor in what circumstances the clairvoyant faculties were observed and tested.

Conrad was one of those who appears to have been impressed by a possible relation between ecstacy and magnetic somnambulism. It is in this connection that he regarded the famous stigmatic, Louise Lateau, as a religious somnambulist and he believed that her stigmata and ecstacies were to be easily explained by the

influence of animal magnetism (36, p. 50).

Dealing with thought-transmission (pénétration de la pensée) Conrad maintained that a number of religious ecstatics and somnambulists had been able to read the thoughts of those present by means apart altogether from the ordinary channels of sense. Indeed, he stated (36, p. 63) that he had personally met one or two somnambules who were gifted with this faculty and which he had himself actually seen at work. But unfortunately he does not describe what exactly it was that he saw and what precisely were the phenomena which were being exhibited and the reasons why at the time he believed the thought-transmission to be paranormal.

The greater part of Conrad's book is devoted to a description of the curative powers of animal magnetism and therefore does not concern us here. There seems, however, no reasonable doubt that the author connected animal magnetism with alleged electric properties in the human body which he describes in one place as "the incomparable human electric machine". Apart, however, from these considerations, it seems to be clear that Conrad regarded the higher phenomena as not solely dependent on mesmeric influences but as able to manifest themselves in all kinds of different circumstances dependent on various states and conditions prevailing at the time.

Hypnotism, the mature and far more scientifically orientated development of animal magnetism, had not yet attracted the full attention of medical science and psychiatry and the theory of the vital fluid was still held by successful mesmerists who with their female somnambulists travelled through Europe, demonstrating the power of the human will, as it was believed, in manifesting extraordinary powers. One of these mesmerists with an international reputation, demonstrating his somnambulist's remarkable faculties in many countries, was the Belgian-born performer calling himself Donato who in the decade here under discussion lived in Paris.

Donato's somnambulist, Mlle Lucille, was able to demonstrate all the usual somnambulistic phenomena that in those days were still regarded as practically impossible in the waking state and outside magnetic influence. As examples of the marvellous and unique working of the magnetic fluid, Donato, by making a few passes over his subject, induced cataleptic conditions, or insensibility of the various limbs. He showed that his hand attracted the somnambulist as if it were a magnet, while the hands of other people repulsed her. It was claimed that during the induced cataleptic state she did not react to an electric current passing through her body for ten minutes. However, the strength of the current is nowhere mentioned. On 11 November 1877, Lucille had the misfortune while in the somnambulistic state to fall off the high bridge connecting the stage with the auditorium, hurting herself badly by falling on the zinc screen behind the conductor's stand. Though she had lacerated her arm she did not give the least sign of feeling pain till Donato awoke her from her magnetic sleep. When the doctor had to sew up the gaping wound he requested Donato to put Lucille again into the somnambulistic sleep, so that the arm could be treated in the complete insensibility of the patient.1

A. N. Aksakov, the Russian savant and Editor of *Psychische Studien* believed that telepathic communication between Donato and Lucille could be established. In order to test such possible thought-transference between them he conducted a series of experiments on 17 November 1878 in Germany. Aksakov had taken with him six cards on each of which he had indicated in writing what he wished to have performed by the subject. After the subject had been put into a magnetic sleep, Aksakov gave Donato a card, asking him to order Lucille, only by looking at her, without saying

¹ Psychische Studien, 1879, pp. 102-106.

a word or making a single movement, to execute the various movements and exercises Aksakov had written on each card. These six movements were the following: (1) stretching forward the left arm; (2) raising the right arm to a perpendicular position above the head; (3) placing both hands on top of the head; (4) folding the hands in prayer; (5) making a knot in a handkerchief, and (6) touching the left ear with her right hand.

Aksakov stood next to Donato, while Lucille in a profound somnambulistic sleep sat in an armchair near the window in the front part of the room. Donato read what was written on the first card, stared at Lucille, and in a very short time Lucille's left hand started to move away from her body and finally was stretched straight in front of her. The arm remained rigidly stretched out until Donato gave the order to relax, when the arm returned to its natural and comfortable position. After the first experiment Aksakov had the subject's head covered over by a handkerchief. In the course of the third experiment Donato stood behind Lucille but this experiment failed. Aksakov now took up a position next to Donato who was still standing behind the somnambulist. requested Donato to concentrate his will-power on a certain part of Lucille's occiput that he indicated with one of his fingers. As his finger approached the subject's occiput her head started to incline more and more forward (presumably showing a kind of repulsion effect in connection with a hand being not that of her mesmerist). During the fifth experiment Donato again stood behind Lucille and stretched out his hand above her head but not touching her. Hereupon the subject got up from her chair and following Donato's hand walked over to the table on which Aksakov's handkerchief was lying. Slowly she reached out her hand and pulled a corner of the handkerchief towards her and tied it into a knot. At the beginning of the sixth experiment Donato stood in front of the somnambulist about two or three paces away from her and stared at her steadily and in complete silence. Within a short time Lucille's hand went upwards until it reached her chest and then up it went still higher until finally it came up to the same height as her ear which she then touched with her fingers.

Aksakov mentions the fact that during the experiments complete silence reigned and that Donato did not try to give the slightest sign. Donato is said to have remained absolutely immobile. According to Aksakov these experiments gave him the personal conviction, leaving not the slightest doubt, that extrasensory perception was the only explanation for what he had seen happening

during these Donato experiments. Lucille's eyes had remained closed all the time, while during some of the experiments the mesmerist had stood behind his subject.

I am not at all sure whether Aksakov's experiments (there were only six of them) with Donato acting as an agent may be considered as any evidence for the existence of paranormal cognition. The fact that Donato was always only one or two paces away from the subject and together with her in the same room in many ways invalidates the results claimed to have been obtained. Such an experimental set-up as conducted by Aksakov would certainly not be accepted as valid in an evidential sense in modern times. It is also hardly possible for a single observer to keep a watchful eye on the subject as well as on the agent during every single moment of the experiment. The hyperacuity of the somnambulist's senses may have made it possible for the agent to have whispered in a very low voice some indications as to what the subject was expected to do, unheard by Aksakov.

It seems that during mesmeric demonstrations in theatres, etc., Donato generally limited himself to the impressive though uncommon phenomena of a "normal" nature which somnambulists are able to show in this condition, such as rigidity of the limbs, cataleptic conditions and hallucinatory impressions. Perty (25, p. 102) writes that he was present at one of Donato's public demonstrations, with Lucille as the subject, at Bern (Switzerland) on 4 November 1880. There were no telepathic or similar manifestations, but one of the things that impressed Perty was the great muscular strength Lucille developed during her somnambulistic trance. This gave him the conviction that Donato's methods were based on hypnotic rather than on magnetic influence. The somnambulist was not put to sleep by letting her stare into a crystal ball but simply by Donato staring at her, the same mesmeric method being used by that other internationally known mesmerist, Regazzoni. Perty also believed that the great muscular strength shown by Lucille during her mesmeric trance could hardly have been produced by animal magnetism but should be regarded as of a typical hypnotic nature. The same applied, he thought, to the blind obedience Lucille showed to Donato.

According to Léon Tétard, quoted by Delboeuf (26, p. 19), Donato himself stated that he did not believe in thought-transmission or mental suggestion and stressed the rôle of suggestion in the magnetic state. Indeed, in 1880 he wrote of himself that "je n'ai cru posséder un don surnaturel, mais seulement un don

naturel, qui me suffit amplement" (26, p. 113). There seems no reason to doubt that Donato was simply an adroit showman whose feats naturally baffled many credulous persons such as Aksakov.

Delboeuf and his Followers

From 1880 till the end of the century there was little interest in Belgium in animal magnetism and theories of the vital fluid. It seems that from now on Belgian scientists and philosophers enthusiastically joined the French medical doctors and psychiatrists in the exploration of the quickly expanding field of research in hypnosis and its phenomena. It was soon found, as Braid had demonstrated some thirty years before, that the phenomena of hypnotism and of magnetism were practically identical, and, having become convinced of the important role that suggestion (in all its various kinds) plays in the production of hypnotic phenomena, researchers quickly came to the conclusion that the conception of a mysterious magnetic fluid as a causative factor was unnecessary. Just as in physics the hypothetical world became unnecessary to explain certain facts in nature, so the scientific development of hypnosis research had no longer any use for the animal magnetic fluid.

Compared with what happened in France (Charcot and his disciples) only very few Belgians made a memorable contribution to hypnotic research. Hypnotic investigations seemed to have been a speciality of French enquirers, at least during the 1880-1890 decade. One of the best known Belgian investigators was Professor J. R. L. Delboeuf (1831-1896), a man of great erudition, as well versed in mathematics as in classical and modern letters. contrast to the majority of his French and Belgian colleagues studying hypnotic phenomena, Delboeuf held no medical qualifications. His interest in mesmerism seemed to have been mainly in its presumed therapeutic value in curing a variety of ailments and eliminating pain, and also in the far-reaching psychological implications of the demonstration of the influence of the mind on bodily processes. Probably because he was not a qualified medical man himself, he was also very active in defending the rights of mesmerists to give public demonstrations of the faculties and powers of their somnambulists, thereby showing the lay public the power of the vital fluid (or rather suggestion as Delboeuf himself would have termed it) to strengthen or alter personality traits and moral and intellectual faculties. His rather emotional defence of

mesmerists and laymen practising hypnosis for therapeutic purposes occurred at a time when the Belgian Government was engaged in getting a law accepted by parliament to prohibit hypnotizing by the lay public, privately or publicly, and to permit it to be used only by those persons who had passed the necessary examinations in medicine. This situation exposed Delboeuf to a number of rather violent attacks by the medical profession. His attitude in this matter was largely determined by his views concerning the reaction of the mesmerized person to the suggestions imposed on him. Many experiments with his subjects had convinced Delboeuf that one could not induce a hypnotized person, even by repeated suggestions or orders, to do things against his moral convictions. This was in contrast to the opinion of most investigators of hypnosis in those days who declared that a mesmerized person should be regarded as an automaton, absolutely at the mercy of the hypnotizer, as passive as a walking-stick in the hands of its owner. The Minister of Justice, M. J. Le Jeune, declared himself an adherent of this "walking stick" hypothesis when he defended the passing of a law prohibiting laymen from practising hypnosis. He stated that "it was absolutely true that a mesmerist could induce his magnetized subject to perpetrate the most awful criminal acts" (28, p. 550).1

Delboeuf himself seems to have possessed considerable mesmeric powers and claims to have cured all kinds of ailments and illnesses, especially those that we now know to be of a nervous nature. He also had the luck to come across a few excellent subjects, among them two peasant girls, with whom he could experiment as much as he liked and who lent themselves even to be burned or wounded with pins, without complaining. Delboeuf's experiments with symmetrical burns which he could, purely by suggestion, either bring into a state of inflammation or heal quickly and smoothly, are well known.

Although Delboeuf had every opportunity to work with a great number of sensitives and somnambulists of both sexes in the course of many years and was able to observe many kinds of remarkable hypnotic phenomena, it is important to note that he never seems to have become satisfied that the higher phenomena of mesmerism, so often reported in literature, were facts in nature.

On a number of occasions he stated that in regard to certain tests, such as those dealing with lost objects and the effect of sub-

 $^{^{1}}$ This was the law of 30 March 1892 (Monit. du 4 juin 1892). See Pasinomie 1892, 256, pp. 231 ff.

stances in closed phials, he was never able to satisfy himself that there was anything paranormal in the results observed (cf. Revue de Belgique, November 1886). In a paper (27), he mentions a case which seems almost certainly to have been that of the French somnambulist Léonie who, it will be remembered, was investigated by Janet, Richet and an English delegation led by F. W. H. Myers in the spring of 1886. He stated that he found great difficulty in accepting the theory of mental suggestion at a distance and had to admit that he suspected that coincidences, auto-suggestions and "des complaisances dans l'observation" played their part in the results. Nevertheless, from what he himself stated, it is clear that he did not wish to go on record as denying that such phenomena ever took place; rather, he preferred to adopt an attitude of suspended judgment, since he himself had never been able to observe such phenomena under control conditions which were dictated by himself in his own milieu. This is especially interesting, since it is clear that in spite of his friendship and association with F. W. H. Myers he was unable to bring himself to believe in the results of the experiments in thought-transmission carried on by the leaders of the Society for Psychical Research.

Delboeuf seemed to have been very unlucky with his experiments with subjects said to have been paranormally gifted. When visiting Nancy and the representatives of the Nancy school (Liébeault, Liégeois, Bernheim, etc.), in 1889, Delboeuf was introduced to a young girl of 17 who according to Liébeault and his colleagues possessed great paranormal gifts when in the somnambulistic state.

Delboeuf then goes on to say that he was suffering from a cataract of the right eye. When the subject had been put to sleep Delboeuf consulted her on the following matter: "I am suffering from an ailment that is not painful. Though it is of a rather serious nature. I am not worrying myself about it. Can you tell me what it is?" No answer. "I already feared that you would not be able to give me a correct answer. It is too difficult. But I will now help you by giving you some indications. It is my eye that has been troubling me. Which eye is it?" "The left eye." those present he made a sign of denial. At that moment M. Liébeault intervened and said to the somnambulist: 'The left eye? What do you mean? The gentleman's left eye, or the eye on your left?" "The one that is on my left." "You mean to say, the gentleman's right eye?" "Yes, naturally." then," M. Delboeuf continued, "what is the matter with my right eye?" "You are far-sighted and cannot see from near-by. You

are quickly tired when working. Now and then your eyelids stick together ... occasioning great discomfort to you."

After having heard that Delboeuf's eye did not pain him in any way, Liebeault remarked that this painless condition was probably the reason that the somnambulist could not get correct

impressions (29, pp. 45-46).

Delboeuf's opinion concerning the reality of extrasensory perception was shared by another Belgian prominent in hypnotic research. This was Dr. J. Crocq (fils) who was the first to give clinical lessons in hypnosis and its phenomena in a Brussels hospital and who also contributed towards introducing hypnosis in the curriculum of medical sciences at the Belgian universities. On several points he differed in opinion from Delboeuf, but he had never come across a case of mental suggestion or extrasensory perception so well authenticated that it could convince him of the reality of paranormal cognition.

In his book on hypnotism and crime, published in 1894, he writes: "I conducted a great number of experiments with subjects who were either in the waking state or put into a somnambulistic sleep. I made them divine the symbols of playing cards or some object I held in my closed hand. I have tried to transfer to the subject by mental suggestion, instructions, certain names, hallucinations, etc., but I never had better results than M. Gilles de La Tourette who repeated the clairvoyance playing cards experiments conducted by C. Richet and who never obtained any other results than those of the level of mean chance expectation. I am therefore forced to deny the existence of mental suggestion" (30, p. 126).

Crocq also seems to have visited several clairvoyants claiming to divine all sorts of things about a person unknown to them. In the above-mentioned book (30, pp. 128–130) he gives us a very amusing story about one of his visits to a Brussels clairvoyant when he was pumped by the clairvoyant's accomplices in order to supply this "divining" lady with personal data about himself. When he accused them of fraudulent practices trouble ensued and Crocq

was thrown out of the house.

In his textbook on hypnotism, in which he reviewed the whole field of hypnotic researches and theories as it was known at the end of the last century, he kept to his opinion that there was no such thing as extrasensory perception. Though he kept an open mind regarding the whole field of parapsychology as it was then developing (ESP investigation in France and England, the remarkable mediumistic phenomena of a physical nature of Eusapia Palladino,

etc.) there was nothing, he wrote, that could convince him of the existence of paranormal cognition. "I have been present," he writes, "at a great number of public performances where it was claimed that mental suggestion would be demonstrated. I have, however, in every instance discovered the trick, often only perceivable with the greatest difficulty, that guided the somnambulist. These somnambulists were successful by employing a kind of agreed upon alphabet" (30, p. 439).

A little further on he goes on to say: "Hence, I have come to the conclusion that I will not categorically deny the existence of mental suggestion but that I do greatly doubt that it really exists for nothing of an exact nature proves its reality" (30, p. 440).

Croca shows the same scepticism towards the claims of Col. de Rochas to have proved the existence of what the latter terms "exteriorization of sensibility" and consequently the reality of the vital magnetic fluid so dear to the mesmerists of the first half of the nineteenth century. From the start Crocq doubted that the explanation submitted by Rochas of what he had observed during his experiments with some of his somnambulists was the correct one; in criticizing Rochas's claims he coined the term pseudoexteriorization to denote that there was no question of a real exteriorization of the sensibility but that such phenomena could easily be attributed to suggestion and unconscious training of the somnambulists with whom Rochas worked for years (31, pp. 312-313). Therefore what Rochas regarded as indications of the existence and manifestation of the fluidic and supernatural effluence (considered by the mesmerists to be the cause of all kinds of remarkable magnetic phenomena) were quite without foundation.

It is Crocq's merit to have been the first to direct a questionnaire to a great many prominent investigators of hypnotic phenomena not only in Europe but also in the United States. No scientific value can be attached to such a collection of opinions, however prominent the men may have been who expressed them, but it does show that on many interesting points in connection with hypnotic research and theories there existed a wide divergence of opinion about the true significance of certain observed phenomena occurring during hypnosis and somnambulism. There is little point, after more than half a century, in trying to unravel this complicated tangled skein of false and correct observations, wishful thinking and unsatisfactory experimental conditions which formed the basis of certain claims. In retrospect, however, it can be said that of all the various phenomena in discussion during the 'nineties, such

as the *transfert* by applying magnets, the influence of various metals on the behaviour of the hypnotized subjects, the influence of drugs from a distance, Baraduc's polarization theory of the vital fluid, etc., only one survives up to modern times. That phenomenon, already discussed in Crocq's census of hypnotism, is extrasensory perception. Certainly, even today its existence is denied by some and affirmed by others, and its reality is still an open question, but it is constantly debated with acrimony and it shows no signs of being banished to the limbo of discarded theories, hypotheses and phenomena.

In connection with the theme of this present work, mesmeric and hypnotic procedures and paranormal phenomena, it seems to me to be a quite significant fact that Delboeuf's and Crocq's experience points to the conclusion that paranormal phenomena are very rarely produced by mesmeric manipulations alone. Here we have two men, each outstanding in his own department, medical and non-medical, who in the course of many years must have observed hundreds of cases of hypnotically induced somnambulism and similar conditions, declaring that they had never come across a case of paranormal cognition or one indicating a paranormal physical influence. Delboeuf mentions having been present at several public demonstrations of mesmerism at Liège where such famous mesmerists as Donato, Hansen and Léon showed their remarkable influence on their somnambulists and subjects recruited from the public. But these demonstrations did not impress Delboeuf in any way as showing traces of paranormally induced behaviour or extrasensory perception.

If we raise the question why Delboeuf and Crocq during their long series of experiments with hypnotized subjects (Delboeuf adopted the procedure of the old mesmerists, making passes and such manipulations to induce magnetic sleep or somnolence in his subjects, while Crocq made use of the more modern methods of hypnotism) never came in contact with an authentic case of paranormal phenomena, we can only advance our personal opinion and suggest that they were either very unlucky in not finding a gifted subject among the hundreds with whom they worked or that they were mentally so averse from the idea of the existence of extrasensory perception (clairvoyance, telepathy, etc.) that they unconsciously inhibited paranormal phenomena in their subjects.

There is a good deal of resemblance between establishing the existence of the phenomenon of causing blisters and other organic changes by simple suggestion and establishing paranormal pheno-

mena. Both types of phenomena seem to have been rare and dependent on the constitution of the subject and perhaps also on the mental aptitude of the experimenter. Delboeuf could not produce such physical changes among his own subjects, though some with whom he worked during several years were highly suggestible. The only time he saw the production of blisters by suggestion was during his visit to the Salpetrière when under quite good conditions he could follow the development of the blister after Charcot had suggested to the subject that a piece of burning wax had dropped on to a certain spot on her wrist. Though the wrist had been bandaged and glycerine applied to the spot indicated after a short interval blisters began to show themselves. next day the blister had become so enlarged that it was I inch long and ½ inch broad (27, pp. 136-137). Incidentally it was Delboeuf who, then just starting his studies of animal magnetism, was the first to suggest that the stigmatization of the famous Belgian Louise Lateau was due to the action of the imagination on the body and that the stigmata were the product of auto-suggestion. Although the great Virchow, in discussing the case of Louise Lateau in 1876 had cried out: "it is either a fraud or a miracle", the young professor Delboeuf, known to but a few of his colleagues, had given it as his opinion in 1869 (Journal de Liège, 22 December 1869) that such stigmata should not be considered as a miraculous event but as natural processes of mind influencing the body.

Crocq, on the other hand, never had the opportunity of observing a single case of vesiculation by suggestion. Although he was aware that some of his colleagues were lucky enough to produce such blistering effects by suggesting to the subject that he was being burned on a certain spot on his body or that a vesicatory had been applied to a certain place, Crocq, without denying the possibility of such bodily effects by pure suggestion, believed this a very rare phenomenon, the production of which only succeeded with hysterical persons. In this connection he also remarked that Louise Lateau's stigmata, certainly to be regarded as authentic and not the result of fraudulent practices, should be explained as the result of auto-suggestion and that their production was only made possible by Louise's pathological, hysterical constitution (31, pp. 436–437).

It is rather remarkable that the two Belgian leaders in hypnotic research during the last two decades of the nineteenth century both declared that they did not come across one single paranormal phenomenon, notwithstanding the fact that they experimented on

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a large scale with hundreds of subjects. Delboeuf lived with an excellent subject in his house for several years and had every opportunity to observe her gifts, if any, of a paranormal nature. He could induce any kind of insensibility in this subject (her first parturition happened under hypnosis without her feeling the least pain) and she obeyed any post-hypnotic suggestion, but she never gave him one instance of having had a paranormal impression.

On the other hand we have the case of the female subject of M. A. Denis, a businessman living at Verviers, who is said to have had frequent paranormal impressions in relation to events occurring to himself, to whom she seems to have been much attached. These paranormal impressions did not occur during experiments especially conducted to find out whether extrasensory perception existed, but were more or less of a spontaneous nature. M. Denis published his experiences with this subject in an article (32) pointing out that a good deal had to be taken for granted in this matter and depended on his own trustworthiness. Still, he described some interesting cases which seem to be well supported. M. Denis apparently treated his subject in accordance with the old mesmeric precepts, basing himself on the concept of the vital fluid.

In the first case mentioned he remarks that on 13 May 1893 he visited Col. de Rochas in Paris and was present at some experiments conducted with Rochas's subject, Mlle Lux, with a view to demonstrating the reality of the exteriorization of sensibility and that of the astral, the fluidic body. After his return to Verviers, he decided to start experiments with his own subject, Mlle Aloud, in order to see if he could obtain with her the same results as Rochas had had. On 29 May he entered his subject's house (she lived about a quarter of a mile away from his own residence) and found her in bed and asleep. He was told that she had been indisposed for some time. M. Denis put himself at once in magnetic contact with her and ordered her to describe her ailment and prescribe medicines and a régime to cure herself. This she did.

"Suddenly she told me," M. Denis writes, "as if in a dream: 'When you were in Paris, you stared with great curiosity at a woman'. Very much surprised, I asked her to explain herself more fully. 'You looked at a woman who was singing trills.' 'Where did this happen?' 'In a large hall where there were quite a lot of people. You used all kinds of glasses in examining this person.'"

"This is what happened. In the evening of 13 May, one of my relations and myself decided to visit Eldorado.¹ At a certain

moment a lady appeared on the stage, named Mlle Polaire, a singer in whom I believed to recognize the subject of Col. de Rochas, despite the fact that the thick layer of powder and rouge had changed the expression on her face. I examined her from a distance with great care but could not satisfy myself that she really was identical with the subject of Rochas. . . . The detail about "using all kinds of glasses in examining this person" is very typical, for not trusting to my own spectacles which I deemed insufficient for my purpose, I made use of those belonging to my relation who accompanied me, hoping in this way to see more clearly if Mlle Polaire was or was not Rochas's subject.

"'Did the singer see me among the spectators?' I asked her. 'No.' 'What more did you observe?' 'That you were accom-

panied by a person you esteem highly.'

"Continuing the conversation I asked her: 'Did you see me somewhere else in Paris?' 'Yes, in a long street; you were walking very fast, nearly running.' 'Can't you remember some details of that street, so that I could recognize it?' 'No, that street wasn't

fine looking, but neither was it ugly.'

"I presume that the street she was talking about must have been the Rue de l'Université. I walked right down it from the Boulevard St. Germain to the Rue Jacob. The street seemed endless to me, as I was very much in a hurry at the time. By now very much interested, I went on questioning my subject. 'Did you see me somewhere else?' 'Yes, you were together with a gentleman who was making a great many movements in front of a woman. He held an object in his hands, the influence of which upon the woman was visible.'

"It was certainly Col. de Rochas and the piece of wax in which he had dissolved the effluences of his projected subject [sujet extériorisé]. 'On which story did we find ourselves?' 'You weren't on a story.' This is quite true, since the experiments were con-

ducted on the ground floor" (32, pp. 1-3).

M. Denis now recalled his subject to the waking state and ordered her during the somnambulistic condition to note down in writing all the impressions she was going to receive in future. Another case related by M. Denis is the following (32, pp. 8 ff.).

"On 27 or 28 September I was sojourning in Paris, and there I cut my finger while lifting up a chest. When I returned to Verviers a week later, my subject in the somnambulistic state told me that she had seen me on that occasion. I reprimanded her for not noting down her impressions, and I then and there handed her a

pen to rectify immediately what she had forgotten. The following dialogue ensued: 'Sir, I saw you in Paris; you had hurt yourself and were bleeding profusely. You were in a bad state.' 'Did I hurt myself so badly?' 'O, certainly!' 'Which finger was hurt?' 'It was between the first and second phalange of the left hand.' 'What is the name of this finger?' 'The index.' (All these details are correct.) 'Continue,' I said. 'You were busy taking measurements in a small room.' 'Did I hurt myself while taking measurements?' 'No, it was after you had taken the measurements, but you also took measurements after the accident.' 'Do you remember the date?' 'No, no!' 'During which part of the day did I take the first measurements?' 'In the morning.' 'And when did I hurt my finger?' 'During the afternoon.' 'Did you see who was with me?' Here I was thinking of my daughter who twice bandaged my finger, as the blood was running profusely. 'No, but I did see a man who put something on your finger.'

"Somewhat surprised that my subject did not mention my daughter who had twice bandaged my finger and not remembering that somebody else had attended to my finger, I again put the question: 'Are you sure that it was a man?' 'Yes,' she answered.

"I then remembered that one or two hours after I wounded my finger (I dined during that interval) I went to a chemist's shop where the man had covered the finger with collodion in

order to prevent the wound getting infected.

"Although my subject had not noted down her impressions at the time, I am convinced that she did have them at the time I cut my finger, so proving their paranormal nature. The reason for my conviction is that at the very moment the subject had perceived my blood running profusely she started packing her portmanteaux. When she awoke from her somnambulistic sleep she found—without knowing what had happened and what had made her pack her bags—her valises fully packed and the cupboards in great disorder. Astonished at what had happened, she told her neighbour, Mme C. G. about it, that is to say before I returned to Verviers. It is possible that when in the somnambulistic state she had perceived me wounded, the idea forced itself upon her to depart directly for Paris to help and nurse me."

M. Denis obtained a written statement from Mme C. G. attesting that before his return to Verviers, Mlle Aloud, the subject, had told her that to the subject's great astonishment the latter had found her bags fully packed and her apartment turned into utter

confusion (32, p. 10).

In his article M. Denis quotes several other cases of alleged telepathic contact between his somnambulist and himself, all of which he himself considered of a paranormal nature.

During the last decade of the nineteenth century, two Belgian writers published books in which they reviewed the various problems connected with hypnosis and mental suggestion. The first of these was Albert Bonjean, a man of legal training, who experimented with a number of excellent hypnotic subjects and was able to induce in them all the ordinary phenomena of mesmerism such as positive and negative hallucinations and even cases of elementary stigmata coupled with bleeding on certain patches of the skin (33, pp. 100 ff.). From his account it would appear that he endeavoured to obtain mental suggestion with many of the subjects with whom he worked, but was never able to obtain results which led him to believe in its reality (33, p. 274).

Although Bonjean was clearly impressed by Ochorowicz's book¹ on mental suggestion, he remained highly sceptical and stated that at the moment of writing he had very little belief in the reality of mental suggestion and felt inclined to admit that many experiments which had been conducted to prove its existence were not completely water-tight. He went on to say that in addition his own scepticism was based on the many experiments he had conducted with his own subjects during several months, all of which tests were either completely negative or had given results of a very doubtful nature (33, p. 274). Unfortunately he does not describe the kind of experiments he conducted, but stated that he never lost heart and continued the work with the same enthusiasm as when he started.

It is possible that his disbelief in mental suggestion was stimulated by his experiences with the female somnambulist, Lully, and her mesmerist, who claimed apparently that his subject was a highly gifted clairvoyant and was able to demonstrate thought-transmission (pp. 261 ff.). Bonjean believed that he had discovered the trick by which the somnambulist and her manager communicated with each other. Contrary to the performances by Pickman and Zamora, Lully's mesmerist had to know first what his subject had to divine and such a procedure is, of course, very suspicious and suggests that somehow there must be a sensory contact between the two. On the other hand, Lully's performances had made a great impression and certain French investigators like

 $^{^1}$ De la suggestion mentale, Paris, 1887. The second edition of this work was published in 1889.

Grasset and Sabatier of the University of Montpellier were inclined to believe that Lully had genuine paranormal faculties, although it seemed that Grasset was not altogether satisfied that every possible precaution had been taken to exclude normal communication between Lully and her mesmerist.¹

From Bonjean's account, it seems that he first met Lully when she was giving her performances at a fair in Verviers in Belgium. Careful observation convinced him that Lully and her mesmerist communicated with each other by lip-reading. The mesmerist always placed himself at some distance from the somnambulist and facing her, while the latter was seated on a chair with eyes closed and seemingly in a hypnotic trance. Her eyes were neither covered nor blindfolded and success was obtained every time as long as no screen was placed between the two and the one could freely see the face of the other. But as soon as Bonjean got a chance to place himself between the two so that Lully could no longer see the lips of her mesmerist, then her powers immediately disappeared. Another suspicious fact that Bonjean noted was that the mesmerist refused to follow his suggestion and turn his face to the wall during the experiment. These facts strongly suggested to Boniean that silent moving of the lips on the part of the mesmerist gave the subject all the indications that she needed.

Bonjean, as we have said, appeared to have gained much success in producing stigmata and bleeding on the subject's skin by simple suggestion. In conformity with the views concerning this subject which were generally held in his own time, he considered such phenomena within the realm of normal psychology, although, owing to their rare occurrence, some late nineteenth-century investigators of hypnotic phenomena questioned the possibility of producing such organic changes by suggestion alone. Indeed, such phenomena induced solely by suggestion seem today to have become so rare that some modern parapsychologists, not knowing how to explain such changes through knowledge obtained

¹ Professor J. Grasset of the medical faculty of the University of Montpellier was one of the many French medical men of the period who was keenly interested in the problems of occultism generally. He had little critical faculty and is well known for his connection with the case of Anna Briou, whose claims to demonstrate eyeless-vision were exciting considerable interest in French circles between 1896 and 1898. Armand Sabatier was another writer of a rather similar sort who asked such questions as to whether the material universe was eternal and how souls were made. Both of them had had, as far as is known, no training in the detection of simple tricks such as were common amongst the performers of the period. [Ed.]

in the further understanding of psycho-somatic manifestations admit that they feel inclined to regard such phenomena as resulting from certain paranormal factors, for example psychokinesis (34,

p. 127).

The second of these two authors, H. Nizet, discussed the case for the reality or otherwise of mental suggestion at great length without, however, coming to a definite conclusion. In his book (35) he preserves an open mind on the whole question and states as his personal opinion that the existence of mental suggestion cannot be considered so far as proved. Quoting a number of persons with an excellent reputation both in the field of psychology and psychiatry who regarded mental suggestion as a fact he appears not to mention any positive or negative experiments which he had made himself in this special field.

Summing up his own conclusions on the subject (35, p. 108) he states that although experimenters like Ochorowicz, Richet and others have convinced themselves that mental suggestion is a fact, he himself is of the opinion that one should still reserve one's judgment and postpone affirming its occurrence in view of the fact that the experimental findings so far cannot be considered conclusive. Indeed, in this matter the Hippocratic aphorism, Experimentum fallax, judicium difficile, should always be kept in mind.

In the course of his discussion, Nizet devoted some pages (35, pp. 127 ff.) to the performances of stage performers like Pickman and Zamora, at whose stage demonstrations he himself was present when they were given in Brussels. Noting that Lombroso appears to have been convinced of Pickman's telepathic faculties, Nizet declares that he himself was rather impressed, although, as he points out, care should be exercized in view of the fact that Pickman was an excellent professional illusionist. In this connection Nizet's rather simple state of mind is illustrated (35, p. 128) by his statement that Pickman appeared to be quite sincere during some of the experiments. For demonstrating mental suggestion Nizet states that the subject was isolated and those taking part in the experiment then agreed upon a kind of simulated theft or murder as this kind of game appeared to be the most conducive to favour the emergence of mental suggestion. Thus, for example, it was agreed that one of the company should act the part of the person to be murdered, and the knife with which the murder was supposed to be committed was placed among other similar knives. No guidance or contact was made with the person who knew what the subject had to indicate and it is said that the experiments were successfully repeated time after time, while those with contact did not succeed more often than those without. According to Nizet (35, p. 128), Pickman, during these experiments, appeared to be in a kind of light trance (condition seconde) which could not be considered, according to him, either as a state of hypnosis or one of full awareness. He does not seem to have discussed the theory that this alleged condition was just part of Pickman's performance in order to deceive the investigators.

Although Nizet seems to have been impressed by these Brussels experiments he was certainly not convinced that thought-transmission was the only explanation. He believed that the experiments were not conducted in a manner which could be considered entirely satisfactory and that they should be repeated with still greater care. He declared, therefore (p. 131), that definite conclusions should not be drawn from these tests, but at the same time he appeared to agree with the opinion of those present at the experiments that the manner in which the demonstrations were conducted were of such a nature that doubt was inclined to shift and give an affirmative answer as regards the existence of mental suggestion.

Nizet held the same opinion with regard to the performances of Zamora and stated that he was as good as Pickman, quoting a French case in which Zamora was able to discover the buried spoils of a theft which the police had been unable to trace. Nizet was naturally also interested in the question of the influence of medicaments at a distance, which had intrigued so many of the French investigators. Like other critical enquirers he had to admit that the experiments personally conducted in this field only gave confused and doubtful results (35, p. 123).

If we review the development of mesmerism and hypnotism in Belgium during the whole of the nineteenth century and the existing evidence of the reality of paranormal phenomena appearing with the help of mesmeric or hypnotic procedures, the conclusion can hardly be avoided that the paranormal was but rarely encountered, especially when hypnotic and mesmeric researches came to be conducted by eminent men of the medical and scientific professions. We find that in Belgium, as in the Netherlands in the same period, hardly any of these men encountered really paranormally gifted subjects. It cannot be said that they were not on the alert for such phenomena. They recognized the possibility of such phenomena but they simply did not meet with cases of, say, extrasensory perception under conditions adequate to convince them of its existence. Apparently it did not matter whether the

mesmeric or hypnotic trance or somnambulistic sleep had been induced by "magnetic passes" or by methods proposed by Braid and his followers. One has the impression that paranormal gifts are engrained in the constitution of some people and that, if conditions are favourable, they may emerge, whatever the methods used to bring them out. A more or less erotic bond between mesmerist or hypnotizer and the subject may, it seems, greatly favour the appearance of paranormal phenomena if there exists a constitutional aptitude to produce such phenomena. It is possible that the special relationship existing between medical men and patients treated with hypnotism at the Salpētrière and Nancy were not conducive to such phenomena. These conditions were probably better in spiritistic circles where it was a common practice that the "mediums" were magnetized and thus entranced.

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Hypnotism in the Netherlands 1800—1900

Introduction

During the second half of the eighteenth century educated classes in the Netherlands were already well acquainted with the possibility of the existence of paranormal phenomena, and interesting and sometimes even heated discussions can be noted in the literature of the time pro and con the reality of these phenomena and their bearing on the generally accepted philosophical and religious view of life, particularly in relation to the phenomenon of precognition.

When finally, several decades later, mesmerism with its remarkable phenomena of somnambulism made its appearance in the Netherlands, these phenomena, a certain number of which certainly appeared to have a typical paranormal character as defined today, failed to impress the scholars in the same way as extrasensory perception (ESP) did in the twentieth century. ESP at the beginning of the last century was only one more proof of the reality of that

mysterious agency, animal magnetism.

Mesmerism and the doctrines of animal magnetism did not spread to the Netherlands from the south, from France and Belgium, but from the east, from Germany, and at a time when the propounder of the theory of the "universal fluid", Dr. F. A. Mesmer,

was passing his last days in a small Swiss town.

Although one of the schools of animal magnetism, that of Barbarin, had already successfully penetrated as far as Ostend, the final invasion of the Dutch frontiers by the curative doctrines of Mesmer and Puységur was definitely hindered for the time being by a strong opposition from the Dutch medical authority of Leiden University, Professor F. J. Voltelen, who fiercely attacked the theory of animal

magnetism. Mentioning these theories Voltelen went so far as to use such terms as "fairy-tales" and "fraudulent invention", including both Gassner and Mesmer in his denunciation and speaking of the latter's shameful frauds (schandelijke bedriegerijen) in Vienna (1, p. 54; 65 (in Dutch translation)).

Early in the nineteenth century animal magnetism and its concomitant somnambulism (Puységur's method) had a great vogue in Germany, and several famous and authoritative medical doctors of that country, such as C. A. F. Kluge, D. G. Kieser, etc., wrote long volumes about the wonderful results obtained while treating their patients with animal magnetic manipulations, at the same time describing various cases of typical paranormal phenomena, collectively ascribed to "clairvoyance". Dutch medical men became greatly impressed by the enthusiasm of their German colleagues and now started experimenting seriously with the hypothetical magnetic fluid. Owing to the results apparently obtained, the majority of Dutch physicians and philosophers also became highly enthusiastic. Holland now entered into its golden age of mesmerism (1814–1818). Animal magnetism then became a subject for general discussion and. just as happened during the beginning of the Spiritualistic period in many countries, all kinds of private circles started experimenting with "the fluid". At tea-parties, clubs and social gatherings it was the subject brought up for discussion, while it seems that the numbers of young women who consented to be brought into a somnambulistic state were very large.

The medical treatment by animal magnetic methods applied by the German and Dutch doctors was similar to that which developed out of Puységur's discovery of somnambulism. method generally consisted in making various "passes" over the patient's body, laying on of hands, or staring fixedly into the eyes, with the purpose of getting the ailing person into a sleepy condition and aiming at the development of somnambulism which would make it possible for the patient to talk, answer questions and write. Just as nearly a century later Charcot distinguished various hypnotic stages, each with its typical phenomena and symptoms, so the early mesmerists distinguished at least seven or eight somnambulistic conditions. In the fourth or fifth stage of the latter classification it was believed that the patient became lucid or clairvoyant and that he then would be able to demonstrate all kinds of supernatural or superhuman faculties. Some of these, as described by the old mesmerists, would undoubtedly fall within the modern category of the paranormal. During magnetic treatment all endeavours were

directed towards evoking the somnambulist state, as it was believed that in this condition the instinctive and spiritual faculties of the individual would be so heightened that the patient would be able to diagnose correctly his illness and prescribe the fitting medicines and cures, even if that patient did not have the slightest knowledge of anatomy, physiology, pharmacology, etc. These ideas were based on the assumption that animal magnetism would in a sense loosen a man's soul from the fleshly, earthly bonds, so that its natural capacity to know and understand practically everything in this universe would come into full play. In this condition of being more or less free from the body, the soul could then give all necessary indications to cure completely its body's ailments.

It should here be emphazised that it was not the mesmerist who must be considered as the therapeutic agent but the patient himself. By manipulating him according to some magnetic method the patient was brought into a state by the magnetizer which, so it was believed, allowed contact in a more direct way with his soul or spirit, and this higher and immortal part of man could then be consulted as to the best way to rid the patient of his illnesses. Such a somnambulist could successfully treat not only himself but also those sick persons who were brought into contact with him. It is indeed interesting to remark how many cures were reported in those days, especially of nervous complaints, by what we now would call autoposthypnotic commands; for instance, the patient in a somnambulant state would say: "If I drink a pint of magnetized water this evening, tomorrow morning at 8 o'clock my bowels will be well opened" (if the patient was suffering from serious constipation) and, similarly, menstruation could often be induced.

Such phenomena and many others reported in the literature of the time as having been observed during the somnambulant state, or one resembling it, were considered to be supernormal, proving at the same time the reality of that semi-spiritual agency, animal magnetism. A number of these phenomena, however, the modern parapsychologist would not classify as paranormal.

The phenomena that were considered in the beginning of the last century as part of the somnambulant state and a token of the wonderful effect of animal magnetism (but which I do not wish to regard as strictly paranormal, and therefore will not be discussed in this section), are:

1. The patient could predict correctly when attacks would come on, or when the cure would be complete. Predictions concerned with the effect of medicines fall in this same class.

- 2. The so-called phenomenon of autoscopia, rather common in the early period of magnetism. In the somnambulant condition the patient would often describe anatomical details which he claimed to see in his own or other people's bodies. He was heard to say that he perceived his brains, nerves, blood vessels, intestines, and what was wrong with them. He would give descriptions about the thickness of his blood, of its colour, the condition of his lungs, etc. Such autoscopic impressions, however, never exceeded the patient's anatomical knowledge or fancies, or what was known to the medicine of the period. Judged by our modern standards and scientific findings, practically all such autoscopic impressions and claims, regarded in those days as sound evidence for clairvoyance, are quite unevidential.
- 3. The older magnetic literature often mentions a transference of the sensory channels of perception, such as seeing or hearing by the pit of the stomach, the finger-tips or shoulders. Such a transference was for the older mesmerists a sure sign that the subject had developed a high degree of clairvoyance. I shall only cite such cases of sensorial transference when sufficient evidence is forthcoming that all normal sensory cues were excluded. This is very often not the case, for the mesmerists were generally too easily satisfied that the somnambulist was not able to perceive by normal means. They had little idea of the possible hyperaesthesia of subjects in the hypnotic trance and similar states.
- 4. Another phenomenon that was considered a typical outcome of the wonderful effects of animal magnetism was that generally the subject was en rapport with the mesmerist and only heard and reacted to the latter's voice. When other people present in the room screamed at the subject at the top of their voices he would then remain absolutely deaf and show no signs of having heard the slight-When the phenomena from this kind of rapport are obtained within the possible reach of the subject's sensorium (for instance, if the mesmerist magnetizes a piece of string, and any person getting hold of this string automatically establishes rapport with the subject) then, of course, such phenomena are still well within the domain of normal psychology. If, however, such a rapport is brought about, without the subject having the slightest chance of knowing about it by normal means (e.g. the string is held or taken to another house, a different part of the town, etc.), then there is some reason to regard the positive results of such experiments as some evidence of ESP.

The Dutch Golden Age of Animal Magnetism (1814-1818)

One of the first to become interested in animal magnetism and its application as a therapeutic agency was the lawyer P. G. van Ghert, who probably came into contact with the theory in Germany during the first years of the nineteenth century. When he returned to Holland he started to experiment with the "fluid" and to treat the sick at Amsterdam by means of the magnetizing methods then very much in vogue. In 1814 van Ghert published a report (2) of a successful treatment of a lady, lasting a full year (1809–1810), during which she was regularly magnetized twice or three times a week. This lady, who quickly developed into an excellent somnambulist, directing her cure and prescribing for her various ailments in the somnambulant stage, also may have possessed some paranormal faculties. Some cases showing *prima facie* paranormal characteristics are given below in translation.

For example, in a case of what seems like travelling clairvoyance, van Ghert reports that, at a sitting, a gentleman who was present had an aunt living at Doetinchem (a town 100 miles east of Amsterdam). Van Ghert requested the patient to go to that town and have

a look around.

"'Very well,' she answered, 'but first you will have to tell me where Doetinchem is situated.' 'In the county of Gelderland.' Looking round about her for a few moments, she pointed with her hand in a certain direction and asked, 'Is Doetinchem to be found in that direction?' 'Indeed.' 'Is it a village?' 'No, a little town.' 'Through the town there runs a broad street, doesn't it, and the town looks rather neat and clean.' Thereupon she gave a description of two streets, asking us, 'Doesn't the gentleman's aunt live in that street, on the left hand side?' 'Yes.' 'Isn't there a high stoop in front of the house?' 'No.' 'Then I must be mistaken, and the aunt must live in the house next door to the one I have just mentioned. Hasn't the house a step-roof?' 'Correct.' 'This house's stoop is flush with the ground, and it seems to me that there is a little bench on it.' 'Correct.' 'Flanking the house is a passage that runs quite straight.' 'Indeed.' 'On the right hand side of the house there are two windows, they seem to be sliding-windows, and on the top story three windows.' 'Quite correct.' 'How many windows do you see on the left hand side?' the patient was asked. 'I can only see one,' 'There are three.' 'There is a room on the left she answered. side.' "Right, enter that room.'

"The somnambulist now gave a description of the room, the chimney-corner, a writing desk with a clock placed upon it, etc. There was nothing in the subject's description of the room and its furniture that did not correspond with what the gentleman present remembered about that room. But it should be mentioned that he

did not remember all details summed up by the subject.

"We asked her how many windows she saw in this room. 'Three,' she answered. When seemingly standing in front of the house, she had stated that this particular room had only one window. 'There is in this room a porte-brisée [folding-doors].' 'Correct.' 'The door seems to have a whitish tint but I can't see the exact colour. Next door to this room it seems the living-room is situated.' 'Right.' 'Two mirrors hang in the living-room, the larger one against the wall, the smaller one against the side-panel.' 'Correct,' 'There is a gentleman in the house who appears to live there.' 'No.' 'Still, this gentleman very often frequents the house. Nearby the lady of the house sits a servant girl.' 'Yes, that is possible.' 'Doesn't the lady wear spectacles?' 'Indeed.' 'She can also knit very well, doesn't she?' 'Yes, a great deal of her time is taken up by knitting.' 'There is a little dog in the house.' 'What is the dog like?' 'White, I believe with brown markings. It has a collar on with little bells, 'Correct.' 'There is also another dog with longish hair.' 'That may be.' 'The lady is very fond of reading.' 'Yes, that is true.' 'There is a staircase in the passage.' 'Maybe.' 'The kitchen is small but nice and clean. To the right is a small back-yard.' 'Quite so.' 'In that back-yard is a kind of stockade on which dish-cloths, etc. are hung to dry.' 'Correct.' 'Attached to the house, outside, is a little gate.' 'That may be so.' 'It is a little gate where the men go to urinate.' 'Maybe.'" (2, pp. 89-90)

We should keep in mind that van Ghert's treatment of this and other patients often took the form of public séances to which he invited medical men, professors and others in order to demonstrate to them the wonderful effects of animal magnetism. Some of these effects, rare no doubt, may, if true, be considered of a paranormal nature, although in those days they were regarded as quite normal.

The following case seems again one of travelling clairvoyance, or some other faculty, the subject being the same patient mentioned above. The seance took place on I June 1809, and is here described (2, p. 119).

"One of the gentlemen present, a lieutenant, asked the patient if she could have a look at his family and see how they fared. 'I shall have to know first of what kind of persons the family consists, and where they all live,' she remarked. 'In the county of Gelderland, where my uncle and my brothers and sisters live.' 'You have got a sister who looks very pale . . . a girl moping all the time, without the slightest reason for such a state of mind.' 'Correct.' 'Your other sister is not a pretty girl.' 'You are right, she is indeed not handsome.' 'She is disfigured by having had smallpox.' 'Correct.' 'Your uncle is a tall and thin man.' 'Indeed.' 'He is a grumpy kind of man.' 'Correct.' 'His health is at a very low ebb.' 'Yes. so I guess.' 'He is all the time throwing up phlegm.' 'Yes, he does. I have a brother, have a look at him.' 'Isn't he miserly?' 'Yes, as avaricious as I never experienced before.' 'You have more than once kicked up a row with him.' 'Oh, yes.' 'You are at variance with him, are you not?' 'Yes.'" During one of these séances, on 17 June, one of the visitors present asked the patient to go and see his brothers and sisters. What she said she saw, however, was completely wrong. When she was requested by the same gentleman to have a look at his married sister, living at 's Hertogenbosch (70 miles from Amsterdam) the somnambulist was more successful. She described the sister as having a little baby, still being suckled, and appearing to be a girl. The sister also seemed to suffer from an ulcerating breast. After an enquiry had been made, it was found that what was said about the sister was correct (2, pp. 138-139).

A great impression was made on the educated classes in the Netherlands by the publication of a book devoted to animal magnetism, written by three fully qualified medical men, one of whom was a professor of the University of Groningen (3). The book appeared in two volumes, the first in 1814 and the second in 1818. It was really this first volume which paved the way for the application of animal magnetism for therapeutic purposes in Holland. approval given by Professor G. Bakker to mesmerism encouraged the whole medical profession to start experimenting with it and to publish the results they obtained. Though, indeed, mention is made in the first volume (p. 82) of paranormal phenomena occurring in the magnetic sleep (telepathy, precognition, etc.), as described in many publications on the subject, the authors themselves did not give any instances of paranormal occurrences experienced by themselves. In the second volume, however, some examples of such paranormal events are quoted.

Though some may think that the prediction of the occurrence of certain symptoms or attacks of ailments the somnambulist is going to suffer in the near or distant future should not be regarded as

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paranormal (precognition), still, as a matter of interest, I am going to cite here one such case, leaving it to the reader to judge for himself whether such predictions in the somnambulant state should be considered "normal" or "paranormal".

Bakker reported that Â. G., 25 years old and suffering from complaints of the oesophagus, had become a good somnambulist during her treatment with magnetism. Being in the somnambulant state on 16 November 1816, the patient became uneasy and then remarked that she would have colicky cramps on Christmas Day in the evening at 7 o'clock. These cramps would not have any connection with her present illness, but would be the result of catching a cold. Nevertheless the colicky cramps would have to be treated with magnetism. On 24 December the medical practitioner, Dr. Wolthers, had some reason to believe that he would be called to his patient the next evening at 7 o'clock, for the patient would then be attacked by colicky cramps. Everything happened as predicted. Though the attack was rather a severe one, it soon abated after magnetizing manipulations (3, ii, p. 176).

In another case which suggests clairvoyance or telepathy, the patient, A. G., was asked why her sister who was expected to arrive that day from one of the islands to the north of Holland had not yet come. The somnambulist answered that she had been detained at Zoutcamp (a place about 25 miles from the somnambulist's house) by a skipper with whom she was bargaining about the purchase of golden pippins. The truth of this vision was completely verified some

time later (3, ii, p. 177).

Another case (3, ii, p. 181) with the same sensitive might perhaps be interpreted as one of precognition. On 3 January she stated that she had to be bled on 5 January at 10 o'clock in the morning. The blood-letting should be slight but it would be necessary to do it, for she was going to have a bad fright. The cause of the fright she would only tell to her mesmerist when the two of them would be alone together. She then told him that she was going to be greatly frightened by a burglary to be committed in the house she was living in. She proceeded to name various home remedies that should be administered to her in order to calm her after her fright.

The next day, 4 January, the somnambulist gave the following explanation of what was going to happen that evening. The man who was going to burgle the house would try to get hold of foodstuffs. But when the somnambulist discovered him he would hit at her with a piece of cloth or a sack that he had in his possession, and by so doing the lamp she would be carrying would be struck out of her

hand. The light would then be extinguished; the thief would drod what he had stolen and make his escape. She could not see him clearly but only as in a flash. But never would the thief return and try again to burgle the house. A moment before and directly after the light was extinguished she would scream; this would happen between 8 and 9 p.m. and there was nothing that could be done to avoid what was going to happen as predicted. No attempt should be made to prevent the burglary and her discovery of it. The next day she would have much to say against having herself bled but the blood-letting must take place in any case.

Being convinced that the prediction would be realized, both Bakker and Wolthers desired to be witnesses of what was going to happen. After the master of the house had been informed that about the time mentioned above something was going to happen in his house without his suffering any harm, the two proposed that they should be allowed to enter a room behind his shop surreptitiously, in order to look through the glass windows, while keeping themselves in the dark, and then see what would happen. As the master of the house was completely convinced of the honesty of A. G., his servant, and of the truth of what she had pronounced in the magnetic sleep (of which he had had quite a lot of experience), he willingly consented.

But when a few minutes before 8 o'clock they were preparing to enter the room before the appointed time, a servant of the shopowner suddenly knocked at their door to inform them that the maidservant (the somnambulist) had met with an accident. Directly they arrived at the house they heard what had happened from the maidservant. She had gone to the back of the store-room to pack away some utensils and had heard somebody walking about, when suddenly a man had approached her, had struck at her with an empty sack or a piece of cloth, thereby extinguishing the lamp she was carrying which fell to the floor: when she had let out a scream the man had dropped a sack, half filled with salt which he was carrying and ran away as quickly as he could. After investigating the store-room the two doctors found the sack of salt and the lamp lying on the floor as indicated by the maidservant. They also heard from the shop-owner why the garden back door had remained open.

The authors of the treatise reviewed here never seem to have thought that their somnambulist might have hoaxed them and have staged this whole robbery scene in order to impress them with her paranormal faculties. We know that hysterical persons may easily tell stories and act fraudulently only to make an impression on those with whom the hysterical individual is concerned. On the other

hand, no indications can be brought forward in this case supporting such a fraudulent act, and although this cannot be considered a well-evidenced case of precognition, it ought to be considered in relation to other cases.

For instance a similar case (3, ii, p. 178) is quoted by the same authors, again concerned with a precognitive impression that the somnambulist was going to hurt herself at a certain hour of the day. It appears that at q a.m. on the morning of 18 November 1816 the patient predicted that on the same afternoon between 4 p.m. and 5 p.m. she would knock her head against a door and injure it rather severely, causing attacks of dizziness. Owing to this injury her clairvoyant faculties would remain in abeyance the next morning, 19 November. On that day their patient had bouts of dizziness and her head showed a rather nasty wound, caused by the accident the The members of the household who knew about her prediction had advised her, making use of some pretext or other, to remain seated quietly in her chair during the time the predicted accident was going to happen. This had also been her intention, but at a quarter to five in the afternoon a sudden bustle and movement in the household business had made her forget her intention to remain seated. She ran swiftly to a room at the back of the house, and knocked her head against one of the doors of a closet-bed which had been left open.

In the early days of animal magnetism it was usual to prescribe magnetized water for the patient to drink as it was believed to be an excellent medicine for all kinds of ailments. The mesmerist made passes over bottles of ordinary water, or various other manipulations which were thought to charge the water with magnetism. patient wanted to fall into a somnambulant state or deep sleep it was often enough for him to touch a bottle of water magnetized by his or her mesmerist. One of the phenomena that continued to be a subject of great wonder was the fact that many somnambulists were able to distinguish between magnetized and non-magnetized water, in whatever way the experiment to test this power was made. It is possible that, at least in some instances, a kind of ESP may have functioned in distinguishing between manipulated and non-manipulated water. This faculty was considered greatly to support the hypothesis that animal magnetism was a real source of energy. The authors of the book we are here quoting mention some cases within their own experience whereby a somnambulist was able under all circumstances to perceive the difference between water magnetized or not.

In this case they stated (3, ii, pp. 20 ff.) that the somnambulist C. always knew, in whatever way or manner they tested her, how to distinguish between the two kinds of water. She claimed to perceive the difference not by taste but by a certain feeling in her stomach. In differentiating between the two kinds, it did not make any difference whether she drank the water herself or whether one of her mesmerists (Wolthers or Bakker) drank it. Every day the patient had to drink two bottles of magnetized water with which they supplied her daily. In order to test her sensitivity to magnetism they several times sent her one or both bottles unmagnetized; but invariably the patient then claimed that the water did not have the usual effect on her and there had not been any relief.

In her somnambulant state and with her clairvoyant faculties in full operation she would always know which of them had magnetized the bottle or glass of water, and also how often they had made passes in doing so. Whenever she was given water that had been magnetized by somebody other than her own mesmerists, she invariably got severe gastric spasms. She then declared that the water had been treated by a stranger, and was even able to say who that stranger

was.

On a certain day she informed them that a shrub growing in a tub in the room had been watered with magnetized water. After making enquiries they found that the information was correct and that by mistake the plant had been moistened with magnetized water at a time between her last somnambulant state and the one before.

The ability to distinguish magnetized water, at least in the case mentioned above, appears to point towards ESP if the facts are as stated. The gastric cramps, indicating that the water drunk had been magnetized by somebody other than Bakker and Wolthers, might possibly be regarded as symbolizing the indigestibility of the water, because it was charged by somebody else's magnetism. In this case, therefore, we find ESP impressions manifesting themselves by means of motor automatism, as may be the case in dowsing, table-tilting, planchette-writing, etc.

An interesting example of an alleged cure through the use of magnetized water is that mentioned by van Ghert, the mesmerist already mentioned. He stated (4, pp. 12-13) that a patient could at any time distinguish between ordinary water and water he had magnetized, remarking that magnetized water had a saltish taste, very agreeable like mineral water, and that it smelt of all kinds of fragrant flowers, like roses. . . . He had treated several patients who

assured him of the same thing. One of these was quite an uneducated peasant girl who had been born with a "peppercorn", a pimple on her chin as large as a small pea. Together with four other patients she was being treated for nervous attacks and fits, with successful results. When she was in the somnambulant state he once asked her whether he should concentrate his magnetic treatment on the pimple on her chin. After obtaining her consent he concentrated his willpower and thoughts upon the pimple, and at once it began to move up and down in a way comparable to the movement of a grain of gold which one tries to liquefy by placing it on a fanned piece of red-hot charcoal. The chin itself then began to move. The patient's teeth started to chatter from the pain she was feeling but she endured the pain for so long a time that the pimple became completely inflamed. She then requested him to moisten the pimple with magnetized water. This he did but now the pain became so violent that she fainted away. When she awoke from her swoon, she complained of feeling a kind of burning pain where the pimple was. The latter had become red like a drop of blood. He gave her a little bottle filled with magnetized water to take home with her, and advised her to wet some bandages with the water and apply them as a compress to her chin during the night. But when, before going to bed, she wanted to place the compress on her chin she felt such a terrible pain that she thought he had deceived her and had given her nitric acid instead of magnetized water. But as the pimple disfigured her and she observed that it had become very much inflamed and she hoped that it would disappear completely, she endured the pain and applied the remedy for such a time until the pimple, festering all the time, had completely disappeared. This case was, of course, quoted by the author to draw attention to the great therapeutic powers of animal magnetism, however applied, and at the same time giving proof of its reality as a vital energy, existing in nature.

In their account of some of their cases Bakker and Wolthers appear to have differentiated between clairvoyance and telepathy. Thus in dealing with the phenomena exhibited by the maid-servant, A. G., they state (3, ii, p. 187) that she suddenly remarked, after having slept for a few minutes, that something had happened to Mr. W., referring to a death that occurred that very morning, and of which perhaps she could have known. This seemed to be a sort of introduction to another statement which concerned something which had happened to one of her friends. At the moment she was not yet able to see clearly, but a few minutes later she went on to say that she

knew that it happened at rot a great distance, naming the part of the town. She remained sitting with her hand pressed against her forehead for a few more minutes, as if in deep concentration. She then went on, "Oh, now I know what it is. It happened in the house of . . ., in . . . street; somebody had a fall and this girl injured her hand, but of the latter I am not quite sure." Finally she said, speaking rapidly, "She cut herself with glass, she is one of the servant

girls." There is no doubt at all, according to the authors, that what befell her girl friend, just mentioned, was unknown to the somnambulist. But as they had been informed of the accident some hours previously, the question could be raised whether she had perceived directly what had happened to her girl friend, or whether she, indirectly, had derived her knowledge from tapping their thoughts. But apart from the fact that there was no reason to suppose that the somnambulist could not easily have arrived at the knowledge by means of her own faculties, the following indications did not support the idea of thought-transmission, viz. (1) the thoughtful attitude and the gradual, step by step development of obtaining her knowledge; (2) and this is the decisive point, none of them knew of the case in such a wealth of detail as told them by the somnambulist. It might be assumed therefore that the somnambulist not only knew about ailments etc. by direct knowledge and without tapping the mind of the mesmerist but also knew about them in all their smallest details of time, location and development.

The first volume of the book published by Bakker and his two medical colleagues in 1814, supporting in many ways the theory of animal magnetism, soon gave rise to an avalanche of books, pamphlets and articles for and against the subject. Dozens of papers were published, several by competent and qualified medical men, relating their experiences with magnetism in therapeutics. Van Ghert (see p. 55) in 1815 published his Mnemosyne (4), where he published several cures and experiences he had met with as a mesmerist practitioner. Van Ghert seems to have been a powerful and successful mesmerist but he did not entirely conform to the magnetizing methods in vogue in those days. In some ways he returned to the methods of Mesmer himself which most of the magnetizing practitioners had already discarded some time before. Van Ghert's therapeutics aimed at having his patient go through a state of crisis, i.e. attacks of spasms and convulsive motions of the muscles, very similar to those to be observed during an epileptic fit. Such convulsive attacks may be compared with those Mesmer provoked at his famous *baquet* séances. There is little doubt that these attacks of crisis which seem to have greatly benefited the patient were induced by suggestion on the part of the mesmerist.

In the course of his book van Ghert described several instances of alleged travelling clairvoyance (ESP projection). He writes: "After having sat quietly for a few moments, the somnambulist, Miss K., said to me, 'I see your father . . . (he is alive, and at that time was staying at 's Hertogenbosch). He is sitting with his hand on his side.' 'Indeed, that is one of his habits.' 'He suffers from rheumatism.' 'Yes, correct.' 'He is a very kind man, and would like to help anybody, but often he has only met with ingratitude for his kindness. He is melancholy and ponders too much.' 'Yes, that is so.'

"She then continued to give further details and describe several more characteristics of my father so very typical of the man that anybody who knew him would recognize him from the description given. She then remarked: 'It seems that you are thinking of somebody who is expected to arrive in town soon.' 'Yes, it is a friend of mine whom I have not seen for eight years.' 'Where is he at the moment?' 'In Brussels.' 'But where has he been for such a long time?' 'In Germany, where he studied medicine.' 'What is his name?' 'Doctor Snieders.' 'Isn't he a tall and stout man?' 'He is indeed tall, but as far as I am aware rather thin.' 'He has fair hair, and looks healthy and well.' 'Yes, correct.' 'He wears a handsome ring on one of his fingers.'

"My friend had indeed grown very stout and wore a fine ring,

as remarked by the somnambulist.

"A few days after my patient had given the above impressions of my father, the latter arrived in town by chance. He came along with me to my patient, Miss K., who at once greeted him as my father, saying that she had met him somewhere else, without knowing where. She was very much surprised that she could not remember where she had met my father (the latter had never seen Miss K. in his life). My father, also, was very much intrigued by all this as he also had not the slightest idea where he could have met Miss K.

"Some days later the same thing happened with Dr. Snieders whom Miss K. thought she had seen before. In the presence of both these gentlemen she could not keep herself awake and quickly fell into a somnambulant state. She then remembered at once that she had seen the two men only during her state of crisis but assured us with all the force at her command that she had seen them as clearly and exactly as she had seen them when she was in her normal state."



Pieter Gabriël van Ghert

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In another case of what could be described as travelling clairvoyance van Ghert stated (4, pp. 131-132) that one day when busy magnetizing a different patient from the one previously mentioned she said in the somnambulant state: "'Shall I have a look at your friend, Dr. Verhagen, living at Megen?' 'Certainly, do so.' 'A passage runs all through the house, finally coming out in the garden.' 'Right.' 'I can see the doctor but I do not know what he is doing; I believe he will soon come here and visit you. Dr. Verhagen's mother is dressed in a gown of a colour between red and green, with little round flowers. It seems that Dr. Verhagen has a sister who is an imbecile.' 'Quite right.' 'I also see another sister of his with brown eyes. She is quite a bright girl. She is a beautiful girl.' 'Yes, very beautiful.' 'But isn't there, just opposite the doctor's house, a house larger and higher than his?' 'Yes, the French school.' 'That house seems to have five windows in a row across. The windows are painted green."

Although the subject had, van Ghert stated, never been to Megen, had never met the family of Dr. Verhagen personally or heard talk about them, she gave a correct description of the house in which he lived and its environment. She also exactly described his sisters and the dress his mother wore that day, which was confirmed by Dr. Verhagen when he answered van Ghert's letter, informing him of what had happened during the sitting and what the somnambulist believed she had seen in connection with his house and family. She had made only one mistake, for instead of being green

the windows had been painted brown.

In a further case when magnetizing a clairvoyant lady, van Ghert (4, p. 130) stated that she asked him if he was going out that

evening to which he answered in the affirmative.

""Are you going to Pastor Beukman?' she asked. 'Yes.' Then, after thinking for a few moments, she said, 'Do you know whom you are going to meet there?' I answered, 'Probably nobody.' 'Yes,' she remarked, 'it is indeed true that I have never been in Pastor Beukman's house, but that does not mean that I cannot see what is going on there. Pastor Beukman is busy poking in the fireplace. Now he is sitting at the table with another gentleman, who is chatting excitedly. Mr. Schrant is also talking with a gentleman; these two last named gentlemen are standing."

When van Ghert arrived at Pastor Beukman's house he met only three gentlemen there, Professor Lexius, Mr. J. D. Janssen and Pastor Beukman. He then related to them what the clairvoyant in her magnetic sleep purported to have seen in connection with themselves and their respective positions in the room, adding that in view of the fact that only three persons were present, in different places from where she had seen them, he was now convinced that the somnambulist had had a wrong impression. His surprise can be imagined when the gentlemen told him that a few moments before his arrival they had occupied the front room, where there was a fire-place, and that Mr. Janssen and Pastor Beukman were seated at the table, talking together. At the same time Mr. Schrant, who had just left before van Ghert entered the house but had been present in the room at the time mentioned by the clairvoyant, had been talking to Professor Lexius, both these gentlemen remaining on their feet.

The following case by van Ghert (4, p. 16) should perhaps better be regarded as one of pseudo-precognition and as a kind of posthypnotic fulfilment of statements given in the somnambulant (trance) condition than as an example of true precognition. In the somnambulant state a patient once said to him: "'I shall be very unlucky today, for I shall knock my arm several times, and if I am not careful and watchful, it is possible that I shall break my arm above the elbow. If I take care and do not climb on chairs, stoves or other heights then I shall only knock my arm above the elbow. People therefore have to take good care of me, and as soon as I have knocked my elbow, a brandy compress will have to be put on the injured spot. . . . '

"Owing to chance-coincidence,¹ the patient did indeed have many mishaps that day, and did knock her arm and injure it rather severely above the elbow, as appeared from her own story about the course of events, the facts of which could be verified by what her husband and several other reliable people told me about what

happened."

The next day in her magnetic sleep she stated that, just as she had predicted and foretold in her sleep, she had been very unlucky. Going out with her husband and hardly having reached the street, she knocked her right foot with such force that she lost her balance; she would have fallen down, if her husband had not caught hold of her and kept her on her feet. This had happened three times that day, without her falling down. At night, when stepping into bed, she slipped down from the bed and falling down with her arm on the bed-plank, she had injured her arm very severely above the elbow, just as she had predicted during her magnetic sleep. Bandages impregnated with brandy had been wound round the injured spot.

The following examples taken from van Ghert are possible ¹ Van Ghert, a follower of Kant, apparently did not believe in precognition.

instances of ESP, although in some cases the description does not state with certainty that every possible measure was taken to exclude sensory cues. This applies especially to the experiments whereby it is presumed that the subject perceives by means of the pit of his stomach, finger tips, shoulder, etc. As the subject during the somnambulant state generally had his eyes closed the experimenters often took it for granted that the somnambulist's sight had been effectually excluded.

One morning he stated (4, pp. 23-24) that his patient (Mrs. Millet, aged 19) had greatly heightened clairvoyant faculties. She could perceive clearly anything held before the pit of her stomach, e.g. a portrait which she could identify so clearly that she could even give the name of the person who was pictured thereupon. She could also tell the time on a watch that was held before her; and she could always name the exact minute to which the hands of the watches pointed. The various watches held before the pit of her stomach all differed in the time indicated.

In a further instance (4, pp. 25 ff.) van Ghert stated that she not only could see very well by means of the pit of her stomach but she even assured them that she saw her sister walking in the Plantage (i.e. the plantation in Amsterdam). The sister was dressed in a new gown of a yellow colour that the somnambulist had never seen, and she said that the sister intended to visit her doctor at 1 o'clock. After investigating the matter it was found that the course of events had been precisely as the clairvoyant had indicated. The sister did take a walk in the Plantage, being dressed in a yellow gown. Next day the sister, with the same yellow dress on, came in order to be present at the magnetizing séance of the subject. When the subject awoke from the magnetic sleep, she declared that she saw her sister's yellow dress for the first time.

Some more cases of alleged transposition of the senses are recorded by van Ghert. In one (4, p. 37) he wrote that during a séance some of the persons present requested him to show them some interesting experiments. Complying, he held several objects in front of his clairvoyant's fingers and pit of the stomach. When he asked the clairvoyant to be permitted to blindfold her with a piece of thick cloth, she readily consented. Directly he had done so she was able to perceive (by means of the pit of her stomach and of the tips of her fingers) as well and clearly as a person whose eyesight had not been excluded. In order to stop every possibility of fraud and normal perception, and also to conduct these experiments in the best possible manner, he held the objects at a distance from the pit

of the stomach and had her stretch out her arm as far as it would go so that everybody present could convince himself that the somnambulist did not peep out under the eye-bandages and perceived the things in a normal way. Therefore she truly perceived by means of

her stomach and fingertips.

On another occasion (4, p. 67) it was said that the patient was so highly clairvoyant that she not only could perceive all objects by means of the pit of the stomach, shoulders or fingertips and distinguish them at once, but she was even able to see blindfolded the things held at a distance of nearly two feet so that it became impossible for her to see the objects by peeping under the eye-bandages. In this condition she could read the bigger letters of a newspaper when he held the newspaper against the finger tips of her outstretched arm and kept the letters covered with his other hand. He considered that it was absolutely impossible for her to see either with her eyes or with the pit of her stomach.

In another case (4, pp. 127–128), van Ghert treated a scrofulous young boy who had become highly clairvoyant in the somnambulistic state. Not only could he then perceive by means of the pit of the stomach or his fingertips, but he could even read the lettering on pieces of printed paper shut in a tobacco box and held in front of his stomach. He was also very successful in seeing and counting playing cards when placed in the box. The boy, however, was very obstinate and often refused to bring his clairvoyant faculties into play.

One day, apart from van Ghert and the patient, the only other persons present were the boy's father and Mr. Kilian, one of van Ghert's acquaintances, who had just come over from a distant part of the country. Mr. Kilian was unknown to the subject or his father, the latter not even knowing his surname, as in their presence only

his Christian name, Toon was used.

The father asked his clairvoyant son, whether he was willing to try to read through a metal tobacco box. After the boy had given his consent, the father retired to another room and there put a printed card into the tobacco box and held the closed box in front of the pit of the boy's stomach. After a few moments he said, that it was a printed card, which was correct. Next he spelled the letters one after the other and read all that was printed on the card. Thereupon the father asked Mr. Kilian his surname, but in such a manner that neither the boy nor van Ghert could hear it. He then wrote Mr. Kilian's name in large letters on the blank side of the card mentioned above, put the card into the tobacco box and held the latter closed in front of the sleeping boy's stomach.

"'It is written script,' the boy remarked. 'Indeed.' 'I will spell it. ..k..i..l..i..o..n; it is kilion.' 'No,' I said, 'it is kilian.' But when we had a better look at the card, we observed that the written A looked very similar to an O."

The above case at first sight may give us the impression of being one of paranormal cognition. It would be necessary to be sure that the father was not in connivance with his son, or that the former did not whisper what he had to say to the boy, during the moments the tobacco box was held in front of the clairvoyant's stomach.

In the course of his book van Ghert gives some examples of the transference of sensation which are of some interest (4, pp. 27-30), as when without Mrs. Millet knowing anything about it he was given a little glass of gin and bitters. Directly he had tasted a little of the drink, the somnambulist's face showed clearly all the signs of loathing. She started to cough and remarked, "I say, this is very unpleasant, I have got gin and bitters in my throat."

In another instance he says that without giving her the chance of knowing about it, he placed a little piece of ginger-bread with peel in his mouth. At once the subject tasted it but was mistaken the first time, and imagined it to be peppermint. But, directly after, she rectified her mistake by crying, "No, no, I made a mistake; I taste ginger-bread, which was very pungent and threw me into

confusion."

The next case is really one of object-reading (psychometry) which was often practised in those days, in order to get impressions regarding persons, sick or healthy, not present at the séance. The usual object to be used in such psychometric séances was a piece of cloth or handkerchief the person concerned had worn for some days on his naked body, to have it charged with animal magnetism, and sent over folded in a silk cloth as silk was considered to have insulating properties.

For example he recorded (4, p. 32) that one of his patients, a young man, was very successful in getting impressions, while manipulating pieces of cloth during the somnambulistic state. During a therapeutic séance, and in the presence of a clergyman, Mr. Statius, and others, this clairvoyant was handed such a little piece of cloth. The sick person, who had worn the piece of cloth for some time on his naked body, and the disease from which he was suffering were

absolutely unknown to van Ghert and the clairvoyant.

"After having fingered the cloth for a few minutes the clair-voyant said, 'It is from a woman.' 'Exact.' 'She is about 48 years old.' 'Correct.' 'There is something the matter with her

stomach, her illness is centred there.' 'Correct.' 'She cannot digest any food, for as soon as food enters her stomach a feeling of nausea comes over her and she vomits.' 'Absolutely correct.' 'She is weak-sighted and a little time ago started to wear spectacles.' 'Yes, four months ago . . .' 'At this very moment the woman suffers from a pain in the head, just above her eyes; but in no other part of her body.' (We at once sent somebody to enquire into this matter, and were informed that it was exactly as told by the clairvoyant.) 'I am not sure,' he remarked, 'but it seems to me that one of the fingers of this woman's right hand is stiff.' 'Indeed, her right thumb got frozen and has become quite stiff.'"

Another example of this kind of seance was recorded (4, pp. 95-97) by van Ghert of two of his subjects who were handling a piece of cloth, worn by somebody unknown to them, in order to get impressions about their health, ailments, etc. Miss K. said that it was an unmarried woman, which was correct, and then said that the woman was generally of a melancholy mind. Van Ghert replied that this was not always the case as at times she was quite cheerful. somnambulist then said she was not a young woman, saying she was about 30 years old, which was correct. She followed this up by saying that the patient was not a tall woman, that she was liable to attacks of intense dizziness and that her illness was caused by a terrible fright she experienced, owing either to having fallen in a pond or stream, or from a ladder. All these facts were correct, and the patient had, as a girl, fallen into a ditch full of water. Miss K. said that that was not the fright she meant, but one experienced at a later date. Van Ghert said that that was quite correct, as some time before the patient had fainted outright after she had had a very close escape from falling down from a ladder on which she was standing. The somnambule then said that that incident happened in the afternoon and that the patient now felt a pain in her back and had a kind of obstruction in the lower part of her abdomen, all of which was correct.

In the course of his work van Ghert mentions cases of rapport between operator and subject which suggested some form of telepathic communication. For example he described (4, pp. 68-69) how during a certain period he used to magnetize two patients living in the same district. Their houses stood diagonally vis-à-vis. It was really incredible how quickly the one in the normal state was able to become aware that he was busy treating the other one. Both assured him that it gave them a very unpleasant feeling to know that the neighbour was being magnetized. If often happened that the

one not being treated could no longer resist this overpowering feeling, and was forced to enter the house of the neighbour and get himself magnetized too. It might be suggested that in this case one patient saw van Ghert entering the house and that therefore no telepathic rapport was evidenced.

In another case a young man whom van Ghert was treating with magnetism was so very sensitive in regard to this kind of sympathetic rapport that at a mile's distance he could feel at what time the mesmerist had started treating one of his female patients, how long she remained in the magnetic sleep and in what part of her body she was having the most pain. Several times it happened that when the young man was brought into the somnambulistic state at this distance from the second patient, and she was feeling much pain at that very moment, the somnambulist would remark, that Miss M..., the poor girl, was having a terrific pain in her side, in her head, or any other part of her body that actually was hurting her at that same moment. When van Ghert went to Miss M... he was always able to verify that what the young man had said concerning her condition was correct.

A faculty often claimed by somnambules of the period was that of being able to solve cases such as theft. Van Ghert describes (4, pp. 75–77) such a case in his own experience by relating the story of how his subject in the somnambulistic state said that the servant girl had been stealing. This girl, so he was told, had hidden the stolen things in a dark corner and covered them up with dust and dirt, in order to leave them there till the loss of the objects would

have been forgotten.

Asked if she would be able to find the stolen things she said that she could do so if Mrs. H., the mistress of the house, would accompany her. Thereupon she took Mrs. H's hand, and still in a somnambulant state and with her eyes closed, got up from the sofa on which she was sitting. In this same somnambulistic condition she descended the stairs, walked along the passage and requested that the door of the entrance to the cellar be opened. She went down the cellar's stairs and walked straight on to a dark corner, where a little barrel was placed on which some matting and cloth were lying. After taking the stuff away, she thrust her hand into the barrel and took out the lady's handbag and a handkerchief, handing both objects over. She then returned upstairs and seated herself on the sofa. After having thought for a few moments, she said, "It seems to me that something also has been stolen from Mr. H."

Van Ghert enquired of Mrs. H. about this matter but she told

him that she did not know anything about it. His patient, however, persisted in saying, "Still, it is true, in the room farthest back Mr. H. must have had something lying in a small drawer." Mrs. H. answered, "Only his shoe-buckles." "Well, these, too, have disappeared."

At once Mrs. H. went to the room indicated, looked into the drawer mentioned by the somnambulist and noted that again the somnambulist had made a correct statement. The patient in the magnetic sleep then went on to say, "These buckles are made of copper, gilded copper, aren't they?" "Yes, indeed!" "The servant girl has also taken away these buckles and sold them to a Jew. If that man had been here, I would recognize him immediately. He must have worn a white cap and a grey coat. The servant girl didn't get much for the buckles." "How much?" "Only four pence, for he said that the buckles contained only copper and so weren't worth more. With this money and that taken from the lady's handbag she bought herself sweets."

Having said this she turned to Mrs. H. and told her to put the servant to the test in a roundabout way and then she would soon be

detected, for if not she would continue her thefts.

In discussing this case van Ghert stated that he did not know what to believe and therefore he thought it best to investigate the whole matter as carefully as possible before the somnambulist's statements could be accepted. He therefore asked Mrs. H. to watch the servant carefully and to test her honesty at every convenient occasion. She promised van Ghert that she would do so and after about six days the servant had been caught stealing several times and having been forced partly to confess her thefts she was dismissed.

Although the statements of his subject had been justified regarding the thefts, van Ghert questioned both Mrs. H. and Miss K. about the case and they both agreed that the subject had not consciously known who the thief was or where the stolen objects had been

concealed.

It was believed at one time in the past (and the same idea has been revived today) that there exists a mysterious sympathetic bond between human beings and their secretions and various bodily parts. A sympathetic bond of this kind was, it seems, supposed to cause certain effects which were described by Dr. Alexander Numan (1780–1852) an agricultural and veterinary specialist of Groningen and a member of the committee surveying the activities of medical practitioners of that county.

The author stated (5, pp. 21-22) that previously he treated a girl of about 20 years of age with animal magnetism. For the last three years the girl had been suffering from an intermittent fever (tertian fever) which was accompanied by serious disorders of the circulation of the blood, especially in the vessels of the abdomen.

One day, after this patient had been brought to a state of somnambulism and a high degree of clairvoyance, he followed her own instruction and bled her. The idea came then to him to ask her whether if the blood thus drained were magnetized while she was not present, such a manipulation would cause her to drop asleep. She confirmed that this would be the case if the blood were magnetized within twelve hours of having been drained off.

After the blood had cooled, it became covered by a rather round, thick though somewhat curled, clotted layer (crusta phlogistica). Eleven hours after having bled her, he broke off a piece from the clotted cake of blood and placed the clot on a smooth, flat piece of glass that just previously he had magnetized for the purpose indicated above. When the next morning the patient arrived at Numan's residence to be magnetized by him, she told him, without the least prompting by him or in reply to any suggestions on his part, that something very unusual had happened to her the evening before. Between 7 and 8 p.m. she had paid a visit to her sister who lived not far distant from the patient's own home. There she suddenly, in the presence of several other persons in the room, had fallen asleep. All those present were quite shocked when they saw her faint suddenly, and there was some consternation felt about her They tried by all means to awaken her but without success. She had slept for about an hour, this being the usual length of time for her to remain in her crisis, after which time she awoke in a cheerful mood and felt quite restored and well. The sister's house, where she fell asleep, was about a mile distant from Numan's own house.

In her magnetic sleep, directly following the conversation, she was able to state with more exactness the time of her falling asleep the evening before, and this moment corresponded completely with the time he had magnetized the blood. Numan writes that these phenomena cannot be explained by the imagination of the patient, as she was the first he ever treated in this manner and that she therefore could have no idea regarding the typical effects of animal magnetism. As he had only talked about magnetizing the blood with her when she was in the somnambulistic state, she could have no knowledge about the procedure during her waking state, a view

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prevalent at the time and which Numan shared although its validity has since been shown to be faulty.

When the health of this patient improved, the mesmerist having followed the various indications given by the somnambulist as to medicines, diet, etc., she again instructed her mesmerist to bleed her. This happened twice, and on both occasions Numan tried the same experiment as cited above but without success. According to the somnambulist this failure was due to the fact that the blood had become much more healthy and so magnetism had no longer any effect upon it.

Numan obtained exactly the same results with another female patient who showed similar symptoms. Twice he magnetized the blood of this patient while she was away from him at a distance of two miles. Both times she fell asleep immediately he started treating her blood. But when she was getting better, and her somnambulistic crises had reached their peak, results were no longer obtained when he magnetized her blood without her knowing anything about it.

The above case is instructive as it concerns the whole complex of beliefs which had formed around animal magnetic treatment. One of these doctrines was that when the patient recovered the magnetism had no longer any effect on him. It was sometimes considered by early mesmerists a sound indication of health improvement when the somnambulistic state became shorter and shorter every time in the course of treatment, and when it became more and more difficult for the mesmerist to induce it in his patient. These conceptions, of course, soon became known to the patients and they reacted accord-That the mental suggestion (considered the result of an existing sympathetic bond between the individual and his severed parts) no longer took effect, once the patient was recovering his health, has to be looked upon from the same point of view. That the patient fell asleep the first time that the mesmerist magnetized the clot of blood belonging to the patient might be explained by some by suggesting that there existed a continuous telepathic rapport between the mesmerist and patient. According to this view the pars pro toto idea is prevalent here, and as soon as the patient telepathically got the impression that the mesmerist was manipulating a piece of her blood (being herself) she fell asleep. when asked about it, had affirmed that she would do so, and so her subliminal self was paranormally alert for the sign that the mesmerist was attempting the experiment. That she no longer reacted when she considered herself getting better might be regarded as a kind of "psi-missing". The telepathic impulse was actually present but the

subliminal self no longer passed it on, for such a situation no longer conformed to certain accepted doctrines.

In the course of his discussion Numan noted what he considered to be a paranormal rapport between mesmerist and patient. Thus he reported (5, p. 41) that when on a certain day he was suffering from a disorder of the bowels and felt sick, one of his somnambulists advised him to take some purgative but not an emetic. As he believed this to be sound advice, he took at home a purgative (senna leaflets, tamarind and magnesium salt). Not only did she experience at the same time as himself a loosening of the bowels (though she lived two miles away from him), but she also felt the same symptoms of sickness and pain that he was having at that time. Although Numan may have believed this case to be an example of paranormal rapport, his account of it will hardly inspire confidence in the modern reader.

A year after the publication of Numan's book appeared a work by W. van der Held on his experiences. One of his cases of travelling clairvoyance (6, p. 13) may be worth quoting. A patient, Mr. W. R., was brought into rapport with the clairvoyant somnambulist, in order to obtain a good diagnosis of his ailments. One day, owing to an illness, he was unable to keep his appointment with the somnambulist. About half an hour before the sitting in which Held was to mesmerize the clairvoyant and induce in her the somnambulistic state, he went to Mr. W. R.'s house, and arranged that he was to stay in bed as he had taken a sudorific, and that Held was not going to bring him in contact with the clairvoyant that afternoon. Held then returned to his house and fifteen minutes later started to magnetize the clairvoyant and brought her into the usual somnambulistic state. She showed her great annoyance that Mr. W. R. was not at the séance and that no rapport could be established between her and him. She was then told that Mr. W. R. was not feeling well and that he had gone to bed.

"She then said, 'No, he is not in bed, but is sitting on a chair in the room at the back of the house'. Though I had extreme confidence in the powers of this clairvoyant, I now felt that she had made a mistake. This feeling was strongly supported by the fact that when I arrived at the house of Mr. W. R. about an hour later, I found him in the very same position as when I left him, that is to say in bed in the middle room of his house.

"I was greatly surprised, however, to be informed that he had formed the mistaken belief that I had agreed to come to his house, bringing the clairvoyant with me, and that I was going to mesmerize her in his house. He had therefore got up from his bed, and

exactly at the moment when the clairvoyant had informed me of his whereabouts he had gone to the back room to fetch something, but feeling exhausted, had rested on a chair in that room for five minutes."

In 1817 a very interesting debate was published (14) between J. A. Uilkens and J. Buys. Jacobus A. Uilkens (1782-1825), a school inspector, was a writer of some versatility and contributed a number of education books on natural science. Buys, (1764-1838) on the other hand, was also noted for his contributions to the physical sciences and in their discussion a number of points of interest emerge regarding alleged paranormal phenomena in which Uilkens was apparently a believer. For example (p. 547) he mentions people who were born blind, but nevertheless were able to distinguish colours with their fingers, a faculty which it is uncertain whether the writer considered to be paranormal. On the other hand, he had himself made some experiments with his own somnambulist, a woman some 45 years old who after three weeks' training became an excellent magnetic subject. In one of the tests (p. 552) Uilkens describes an incident which illustrates how experiments of that kind were largely conditioned by the beliefs of the operators. In a cupboard stood an uncorked bottle of currant wine and Uilkens, apparently thinking it was something else, poured himself out a glass of it and drank the contents. His somnambule, who was in the magnetic state, shook herself and screwed up her mouth, replying when he asked her what was the matter with her by saying that the stuff might be called wine, but it was as sour as vinegar. From the account it is clear that Uilkens believed that the use of the normal senses was excluded during the magnetic sleep and there is no evidence which would lead us to suppose that the lady did not know what the bottle contained.

Another experiment was, perhaps, rather better designed, but can hardly be considered conclusive. One day Uilkens took a little box and put in it a small key. He does not say when he put the key in the box, which is of importance in view of what followed. Holding the box in front of the subject's stomach, he asked her what it was, to which she replied that it was a little box and when asked what was in it said that there was a little key. Some thirty persons were present at this test and many of them considered that the performance was fraudulent, since it seemed to be too wonderful to be true.

There is, however, no need to consider that the phenomena were fraudulent, since Uilkens appears not to have given any evidence that a simple normal procedure was not at work. He does not even say whether the key was wrapped up, and since he also omits to tell us whether the subject was able to see normally or not, it is impossible to be sure whether the subject did not simply see the box in front of her and heard the key rattling inside. It is through accounts like these that the incompetence of these early investigators in magnetism can be measured. In another similar test, which apparently was in the nature of a public demonstration, Uilkens took his handkerchief and asked a member of the audience to put something inside it and not to tell him what it was. This was done and the handkerchief was held before the subject in the same way as was the little box. When asked what it was she replied that it was a cloth and when asked what was inside it, she said that it was a pipecleaner. Uilkens then unfolded the handkerchief and showed that the subject had correctly seen and described the object.

In the course of the discussion, Buys suggested that Uilkens' subject might like to try to divine the contents of a sealed box to be supplied by him and by his associates. To this simple request Uilkens replied (p. 558) that he could no longer try this experiment since he had given up his mesmeric work and no longer had his

somnambule at his disposal.

In these tests it is interesting to observe that it seems to have been generally believed at the time that the subjects, once in the mesmeric state, did not know what was going on around them. The fact that the subject closed his eyes was, it was thought, sufficient proof that he saw nothing.

MINOR CASES IN THE INTERMEDIATE PERIOD

Towards 1820 the popularity of animal magnetism in the Netherlands had already begun to fade. In the second volume of his book (3) Professor Bakker was already complaining that he and his colleagues were no longer getting the excellent results with magnetic methods which they had obtained five to six years earlier. The somnambulistic state was getting more and more difficult to induce, and there was also a great scarcity of good mesmerists. Another factor, also, was that the treatment usually took so long. Patients had to be treated with magnetism for many months, and if success was achieved within a year, one could be very pleased. All these drawbacks induced medical men to abandon animal magnetism and try other more satisfactory methods. Animal magnetism became in this way discredited among orthodox physicians and thus the method

became limited to unorthodox practitioners, some of whom enjoyed renown in Holland.

Mr. van der Lee was one of these and in the 1820s the daily newspapers and many pamphlets gave him extravagant praise in view of the great many wonderful cures he was said to have achieved. The methods were the same as applied by Bakker, van Ghert, Numan and others, that is to say, a subject magnetized by the mesmerist was brought into a somnambulistic state and then was able to diagnose the ailments and prescribe medicines. Patients either were present in person or sent a piece of their clothing, a night-cap or something similar. The somnambulist of Mr. van der Lee, who was a grocer, was his own daughter.

Few detailed accounts were printed concerning the exploits of these operators and their somnambulists. There may have been manifestations of paranormal phenomena as often described by the older mesmerists but we know little about them. One or two

accounts, however, have been preserved.

In 1837 appeared a book by a well-known pharmacist of the period, Bernard Meylink, who was interested in animal magnetism and its psychological implications. He maintained that (7, p. 19) in a higher state of development the somnambulist could perceive objects enclosed in opaque boxes, envelopes, etc. He himself was once present at a sitting when the somnambulist was able to read a letter in a sealed envelope. Several times he had held a watch against the pit of the stomach of the same patient and she always correctly stated the time indicated by that watch, however much the watch's time differed from the actual time at that moment.

Another case cited (7, pp. 80–81) by Meylink is that of a somnambulist who correctly diagnosed illnesses through the handling of a sleeping-cap worn by the patient. This record was given to the author by one of his friends and stated that in the autumn of 1835 it was decided to consult the somnambulist of Mr. B. Jodocus Meyer, a well-known mesmerist, on behalf of the 11-year old daughter of a Deventer merchant (cf. 8 and 9). During the whole year this girl had been suffering from convulsive attacks, in many ways similar to those occurring in cases of epilepsy. She had these attacks as often as from one to four times a week and the patient suffered a great deal from them. How much she suffered could easily be seen by the oppressed feeling in her breasts, her violent movements, the intense flushing of her face and so on. The attacks lasted from thirty minutes to a full hour and the only thing that she could do to make them more bearable was to stretch herself full length on the floor of

the room. When she recovered from the attack there was complete amnesia in regard to what had happened during the time the attack lasted.

When treatment by orthodox medical men had been of no avail, it was decided to consult the Rotterdam somnambulist, Miss Steffens, and so a night-cap the child used to wear, and which was duly wrapped in silk, was forwarded to Mr. Meyer, together with the following letter: "Sir, together with this letter you will find a night-cap, in which the patient has slept for a week. The patient who wore the cap is an 11-year-old girl. Will you, please, request your somnambulist to look into the matter, for we would like to know what ails the child and what medicine could be given her with success. I am, dear sir, etc."

These were the only words written to Mr. Meyer and the answer received was amazingly correct. The child's mother affirmed that every word written by the somnambulist as regards her daughter's symptoms were absolutely true and to the point and that the prescribed medicines were administered in full confidence. Fairly soon after the prescribed medicines had been taken regularly, the child got rid of a large quantity of worms. Afterwards there was a slow recovery, the patient became stronger and the attacks were less frequent.

After having taken the medicines for a month, a night-cap was sent off for the second time. New medicines were prescribed and having taken these for a fortnight the child became quite healthy and suffered no longer from convulsive attacks.

It appears that Meylink observed other mesmeric phenomena which, if described correctly, can be considered by some as paranormal. Thus the *rapport* between operator and subject was occasionally such that he records (7, p. 22) that cases were known where the subject was able to tell when the mesmerist put a piece of sugar in his mouth and say that she had a sweet taste and that when the operator felt pain she felt likewise.

Again, cases of travelling clairvoyance were noted by Meylink. On one occasion (7, p. 26) the somnambulist in her magnetic sleep was able to describe a town, a house, and a person who was staying there at the time, with such great accuracy that it was recognized at once as correct, though the person described was staying 130 miles away from the subject, and the latter had never been in that house or town, or had ever met the person she clairvoyantly perceived.

A year before Meylink's little booklet saw the light of day, there had been published, also at Deventer, a book (11) attributed to P. C.

Molhuysen which we perhaps may rightly regard as an early Dutch forerunner to the later English compilation Phantasms of the Living (10). It is a fine collection of various cases of crisis-telepathy, precognition, clairvoyance, remarkable dreams and experiences, especially of visits to the Other World. The author was quite conversant with the somnambulistic practices of his time and a believer in animal magnetism and its effects. He was what we now would call an animist, reducing all the paranormal phenomena to faculties inherent in the human soul or spirit. The spirits of the deceased, according to him, have practically no part in producing the phenomena of a supernormal nature. There is only one case cited in this book which might concern us and this is an alleged precognition of a somnambulist's future behaviour (11, p. 170).

A somnambulist indicated at a certain moment that she was going to receive a letter on a specified day, and that the contents of that letter would greatly distress her, so that she would fall into a fit. As a remedy against these fits she prescribed some medicine. When the predicted day came, the people with whom she was living took care to intercept the letter post, without her knowledge. But it was of no avail. In the evening an express delivery put a letter in her hands, informing her that one of her dear acquaintances had died,

owing to an unforeseen accident.

In 1852, before the craze for table-tilting was introduced into Holland by way of Germany, Dutch public interest in mesmeric phenomena was greatly stimulated by experiments in what came to be known as Electro-Biology. One of the first to start this method of demonstrating mesmerism in the Netherlands was a certain Mr. de Koningh who gave public shows in many of the principal towns.

This method dispensed with the making of passes that so many of the supporters of animal magnetism believed to be necessary in order to induce the effluence to enter their subjects and produce all the remarkable phenomena associated with the mesmeric trance. There is, however, little doubt that the electro-biological method should be regarded essentially as a kind of hypnotism, claiming, as it did, to produce all the results that mesmerism and hypnotism in their various aspects were known to produce.

As an illustration of the above, we will cite the experimental procedure adopted by de Koningh and his disciples during an electrobiological séance. It will clearly show that in a great many respects these sittings resembled the public demonstrations of mesmerism in which it was believed that the mesmeric fluid was an active agent in the production of the phenomena.

The supporters of the electro-biological method claim that about twenty per cent of all individuals were sensitive enough to become influenced (12, p. 3). In order to obtain success, it was absolutely necessary that the subjects should be seated in a quiet room away from all noise and other disturbances. Ten to twelve persons were then requested to seat themselves on chairs facing the wall of the room and to keep as guiet as possible. For the purpose of the séance, certain discs were used, which were made of "hydrogen metal". These discs, of convex form and about one and a half inch in diameter and in the centre one fifth of an inch thick, were made of zinc, with a little round piece of copper fixed to the centre of one side of the disc. This instrument, known as a battery, was then used in such a way that when each sitter held his or her disc a current was supposed to be generated which had some effect on those experimenting and thus it was that some felt a hot current passing through them and occasionally a feeling of numbness taking possession of their limbs (12, p. 5). These discs were placed in the left hand of every subject, who was then instructed to place this hand on the right hand and then both hands on the left knee. They then had to bend their heads downwards and fix their eyes on the disc, remaining staring at it without any movement for six or seven minutes. The operator then passed his hand over the forehead and temples of each subject, pressing down with some force on the upper part of the nose between the eyebrows. He was then told to close his eyes and it was suggested to him that he was becoming more and more sleepy, suggestions which were followed by others, such as he could not open his eyes however hard he tried, etc. If a subject did not respond to these suggestions he was dismissed as not being sensitive enough and the operator turned to the next subject. After a sensitive subject was found, the usual phenomena of mesmerism were then demonstrated and the supporters of this method put forward also the claim that various diseases could be cured by making use of it.

In these public sittings it occasionally happened that subjects on whom experiments had been made exhibited later symptoms of shock and neurosis and consequently such demonstrations were prohibited in a number of places since they were considered to be a danger to public health (12, pp. 27–28).

At the time that de Koningh was operating, a physician of the period, Dr. A. Hoek, who was an ardent supporter of the doctrine of animal magnetism, made some experiments himself with the electro-biological method, using as a subject one of his female

patients with whom he had been working for many years. He soon found that he was able to obtain almost all the mesmeric phenomena through the use of this method (13, p. 16) and although Electro-Biology undoubtedly produced many of the phenomena associated with animal magnetism, it was Hoek's opinion that there was a pronounced difference between the two systems. Following the statements of his own somnambulist, Hoek maintained that, from his point of view, Electro-Biology only acted on the bodily functions, while animal magnetism (levens-magnetismus) brought about a direct manifestation of the faculties of the soul or spirit (13, p. 23).

About the middle of the last century, before the great invasion of American Spiritualism into Europe had taken place which caused, as one might say, the transference of the phenomena of animal magnetism to the domain of spirit intervention, the spirits were not generally believed to make use of animal magnetism to produce the phenomena called spiritualistic. The mesmerists already had full knowledge of the various forms of extrasensory perception, such as telepathy, clairvoyance and precognition. These phenomena, from the beginning of the nineteenth century, puzzled the scientists, and innumerable discussions took place about the probabilities and improbabilities of paranormal cognition. Prizes were offered to those somnambulists who could perceive script locked in metal boxes, etc., but so far as I am aware such a challenge was never met in the Netherlands. The explanatory hypotheses put forward sounded quite modern. There was, for instance, the hypothesis of the sixth sense to explain ESP, and this sense was thought to be found in the solar plexus. If one reads through this old mesmerist literature one cannot help thinking that there is indeed nothing new under the sun, and I am sure that the paranormal has not become any clearer to us moderns than to the investigators of the 1840s.

Typical paranormal phenomena in connection with animal magnetism are rarely reported at this time. A number of somnambulists, however, expressed their opinion on quite a number of subjects, presuming that in their condition their own knowledge and means of perception greatly exceeded those of the common mortal in the waking state. Some of the subjects discussed were conditions existing in other planets, the nature of cholera, the events in connection with Christ's Passion, etc.

It is curious to note that physical phenomena have been hardly ever reported as produced by the somnambulists. In Holland, at

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¹ For an interesting example of one of these challenges see the highly instructive correspondence between J. A. Uilkens and J. Buys (14).

least, not a word is said regarding the possibilities of telekinesis, apports or materialization. So far as I know, not a single case is known from this country occurring before 1850. The production of physical phenomena was probably never suggested by the mesmerists to their subjects, and so no motive existed to produce this kind of manifestation, in contrast to the mental phenomena which were much sought after and generally believed to accompany the treatment by means of animal magnetism. It is only after Spiritualistic phenomena of the physical type became known in the Netherlands that we hear about such manifestations. The only case of physical phenomena in connection with somnambulism and animal magnetism is the one reported by Siemelink (15), whose real name was H. J. van Kesteren and who, before the Spiritualistic period, was a well-known mesmerist, treating all kinds of illnesses with magnetism. From the description he gives us, it is clear that the physical manifestations were the result of the spreading of Spiritualistic reports coming from the United States, England and France. The same probably applies to the automatic writing of Siemelink's somnambulist.

On 27 December 1857 he wrote (15, p. 183) that between 8.45 and 9 p.m. his somnambulist, Miss J. P. van der Goorberg, living at Delft, started to write automatically for the first time (haar eerste spiritualistische schrift). This event, happening in his own house, was preceded by various Spiritualistic manifestations in his room, in the presence of several persons gathered there to witness the séance. The furniture in the room moved about without any visible contact; raps were produced alternatively in the tables, the doors and in the walls. After these manifestations the somnambulist asked them to hand her a pencil and paper, on receiving which she wrote in an unconscious state a poem, the somnambulist herself attributing it to her sister who died four years before.

As may be noted, it was the medium or somnambulist who made the remark that a deceased person, her sister, was writing by means of the somnambulist's hand. The latter also said that the hand-writing was that of her sister. The poem was a religious one and sounded very much like some hymn, of a type sung in the Protestant churches. This case, too, gives a clear idea how about 1857 the somnambulists, who before had nothing to do with spirits of the deceased, suddenly turned into Spiritualistic mediums, under the influence of the Spiritualist movement.

One of the Dutch physicians who continued treating patients by means of magnetism so that they were brought into a somnambulistic state, was Dr. A. Hoek, mentioned earlier, who also published a considerable amount on the subject. Hock was very well known in The Hague about the middle of the last century and later on especially as the obstetrician of Queen Juliana's grandmother. He assisted at the birth of Queen Wilhelmina. Here is a case of a correct diagnosis by one of his somnambulists (16, pp. 14–15).

One day Hoek received a piece of cloth with the request to ask his somnambulist to look into the case. He had not the slightest knowledge about the person or persons who sought information from his somnambulist. He gave the somnambulist the piece of cloth, asking her to diagnose the case, but she could not come to any conclusion. Several times he heard her mutter under her breath, "How curious these things are". At last she said that it seemed to her that two persons were concerned with the piece of cloth; at one moment she believed that it was an ailment of the spine, in combination with something the matter with the chest, but then again it appeared to her to be an illness of the liver of a dropsical person who suffered from severe pains in the right side. She returned the piece of cloth to him, saying, "I cannot make it out, I have the greatest difficulty in distinguishing between the two persons. cannot prescribe any medicine either, as what would be beneficial for the one would be bad for the other."

Hoek became very annoyed with his somnambulist, as he believed her impressions to be erroneous and because such a thing had not happened before. However, he had badly misjudged her. When he had informed the sender of the piece of cloth of the somnambulist's impressions, in reply it was said that every confidence should be given to the somnambulist, for the patient who had worn the piece of cloth had indeed chest complaints and an ailment of the spine. This patient, however, had given the piece of cloth to another person who wrapped up the cloth and posted it. This person had been anaemic for a long time, suffering at the same time with severe pains in the right side, owing to an ailment of the liver.

THE WORK OF H. G. BECHT

Together with Dr. Hoek, Dr. H. G. Becht, for many years town physician (stadsgeneesheer) of The Hague, was a great believer in the effectiveness of animal magnetism to cure or improve the health of the sick. The first time he was induced to apply mesmeric measures to a patient signified a turning-point in his life, especially as the patient gave him an excellent instance of precognition which so baffled him when he found it to be true that he completely changed

his more or less materialistic view of life and became a great adherent of mesmeric phenomena, and later of Spiritualism. He describes in detail this moving experience in one of his books (17, pp. 2-46). As the prediction was made during a course of animal magnetic treatment (it did not cure the patient of her far-advanced tuberculosis but acted as an excellent palliative, and kept death from the patient's door for many months) and before the Spiritualistic invasion of the continent of Europe, I have included the case in this section.

One afternoon in the late summer of 1849, Dr. W. H. M., [Dr. W. H. Meyer?] residing in the Nobelstraat, The Hague, and Becht, who had lodgings in the Oude Molstraat in the same town, were summoned, probably because they were the two nearest doctors, to the bed-side of Miss L. G. L. in the Molenstraat as she had just had a very severe attack of haemoptysis. The patient, a young girl of 23, was lady-in-waiting to Princess Marianne, one of the daughters of King William I. The doctors regarded her case as extremely serious and had not the slightest hope that she would recover.

Becht was then a young man, while his colleague, Dr. M., belonged to a former generation and had already reached the sixties.

One day, when Becht visited the patient, the latter became very distressed and could hardly breathe, so that she was believed to be moribund. Becht gripped her hand and cried with great emotion, "Louise, I will it, you must not die". Directly after this she seemed to drop into a peaceful sleep and her pulse beat became strong and regular. In this mesmeric condition she began to talk and said that she had to be magnetized regularly, drink magnetized water, etc. When she came to her senses, she could not remember anything of what had happened. She appeared to be an excellent mesmeric subject and soon one word uttered by Becht was sufficient to put her in a somnambulistic state. The drinking of magnetized water was continued and seemed to do the patient a great deal of good.

Several months passed. The patient moved to another house and now resided with a lady-friend, much older than herself, in a house at the Amsterdamsche Veerkade in the central part of The Hague. One spring day in 1850, the patient being in the somnambulistic condition which always gave her great relief, she started to talk in a rather melancholy way.

"Next spring I shall not see; I shall no longer be alive when spring comes next year. I perceive a room, looking out on to a garden. What is that? A garden, a large garden, but no flowers,

no fruit and no vegetables? How dismal and sombre everything looks. But it cannot be otherwise, because it is winter! In the month of January there are no flowers other than those the frost freezes on the window panes.

"It is now nearly 7 o'clock in the evening and already for quite a long time the lamps have been burning brightly in the house. And what a lot of people there are standing round the bed. What does that signify? A sick person is lying on the bed. The patient is wrestling with death, her end is very near. But . . . but . . . what do I see? It is me, there, lying on the bed; it is myself... that is my death-bed. And you . . . I see you also among those present. But now you can no longer help me. The fatal moment has arrived. In a few moments the whole world will sink from under my feet, I feel it is the end. . . . " Becht now began to remonstrate with Louise and said, "Surely, your mind is wandering somewhat again, and your phantasy is running away with you. You talked about a garden, there is nothing here but a tiny bit of courtyard. You imagine yourself in the middle of the winter, while at the moment we are experiencing the most delicious spring-time weather. Your dreamimages will certainly also show you your friends are present, and Dr. M., and me too, . . . "

"Keep silent, keep silent," she urged him, "and do not interrupt me; let me go on seeing. And then, yes, there I also see Dr. M., that kind and friendly doctor who always addresses me so kindly and sympathetically. But, oh! him too I see lying on his sick-bed that will become his death-bed. He won't hold out longer than three months after I have gone. For exactly a year to-day he will die. But before that he will have passed my treatment on to some other person. Yes, I see it all clearly now. Dr. M. will not be present at my death-bed. You are there, and nobody else. It is you who will take hold of my dying hands during those very moments. The summer-house and the room, too, I perceive very clearly; but they are outside the town. It is barren and arid there, and very lonely; cold, too, as it naturally would be on the 17th of January."

Becht now continues: "I must say that her words had made a great impression on me, especially as the calm way she uttered these words did not point to a heated brain and a feverish imagination. But even if I, for one single moment, was inclined to attach some significance to the words she had just spoken, I very soon came to the conclusion that no value whatever could be attached to what my patient had said."

Dr. M. was indeed already about 68 or 69, but still was of a strong and vigorous constitution. That very morning Becht had met him at the bedside of a mutual patient, one of the 58 [sic] visits or so he used to attend almost every day. It was also absurd to believe that one so extremely ill would be removed to another residence, especially as she had only just arrived in her new home, while the owner of the house, an elderly lady friend of the patient, would never think of allowing her to leave her present residence. And then to think that she would go and live outside the town, which would make it impossible for him to go on visiting and treating her. But leaving all that apart, everything in her condition pointed to the fact that she would certainly not last longer than nine weeks at the utmost, so that it was highly improbable, yes impossible, that she would live another nine months, as she predicted. And then, the exact indication of the day and hour she was going to die, the persons who would be present at her death-bed, it was all far too fantastic for Becht to believe even one word of the prophecy he had just heard.

Becht then went on to relate that though it had become fairly late that day when his visit to Louise came to an end, he still found time to have a talk with his fiancée and her mother and as he was really greatly impressed by what he had heard and experienced that evening he could not restrain himself from discussing Louise's predictions. His friends were greatly surprised and not a little astonished to hear his tale. After finishing it he had little trouble in convincing his fiancée that, as he believed himself, all this would be found to be nonsense and the fruit of pure imagination. His fiancée's mother, however, was not so sure, for she had had experience in such matters, and thought that such predictions could come true.

In the neighbourhood of what is now called the Central Station of The Hague and completely built over, there used to be in 1850 extensive fields and cultivated kitchen gardens. In one of these extensive gardens there stood a little house, and it was to this place that Louise, on the advice of Dr. M., retired in the summer of 1850, in the hope that the quiet and the wholesome air would do her some good. In the beginning her health improved; she could take little walks and her appetite improved. But suddenly a sharp relapse occurred and it became impossible for her to leave the little house in the gardens. High fever, abundant perspiration and fits of coughing greatly weakened her. She was often visited by the son of Dr. M., himself a doctor, as Dr. M. could not attend the patient as he had himself fallen ill and had to remain in bed. The younger Dr. M.

could not give her any relief; the only thing that did have some effect was the drinking of magnetized water, the only beverage that was not immediately vomited.

It was Becht's custom (17, p. 39) to visit the patient during the forenoon and stay with her for a short time. He then returned at 7 p.m. to magnetize her. One day, however, he had planned to go to the opera with some friends, and had booked his seats a few days in advance. Because of this engagement he went to Miss Louise an hour earlier. He found her sick-bed surrounded by some of the inmates of the house, owing to her condition having become a great deal worse, or at least so it seemed. She herself was very calm and she asked him whether he had been requested by her friends to come earlier than usual. When he said no, she answered that it would not be necessary to magnetize her that evening, as she felt strangely changed. Something extraordinary had happened or was going to happen soon, she believed. She felt rather well, only her hands and feet were as cold as ice, a cold which was extending upwards to her arms and legs. Becht offered to take hold of her hands and said that hot water bottles would be put at her feet. The patient insisted after a while that Becht should leave her and when he departed put something into his hand as a memento.

All through the opera performance Becht felt a great uneasiness creeping over him, and he therefore did not enjoy this rare outing as he had imagined he would. Returning home, he asked his servant whether there had been any calls or messages while he was away. The servant answered that there was a message that Miss L. died at 7 o'clock that evening. Becht was astonished as he had left her bed-

side only a few minutes before seven.

The thought then suddenly struck Becht that the deceased had just so predicted that it would happen at 7 o'clock in the evening, when he and other persons would stand round her bed, and he would grasp her dying hands. And he suddenly remembered that there would be the room looking out on to the garden, winter-time, lighted lamps, the illness of Dr. M., all those things of which she spoke at the time. Everything seemed to be as predicted by her but the only thing he could not remember was the predicted day of her death. He was very glad that at least one detail of the foresight had perhaps not come true. If only he had given attention to those details and kept them in mind, he could perhaps have influenced the course of events and prevented the predicted details from becoming realities.

In his great dismay he left his house and went to the residence of his future in-laws, and found them still awake. They, too, were astonished to hear how completely the prediction had been realized. Becht said what a pity it was that he did not make a note of the predicted day of her death, but his fiancée's mother replied that she had done so, but could not remember where she put the note away. However, she was pretty sure that it was the 17th January that she had been told.

Becht asked her to search for the note, although deep in him was a hope that it would never be found. But that was not so: after searching in all kinds of cupboards and drawers, they finally found the note in her sewing-basket. It was a small piece of paper, folded twice, on which was written in pencil: "Miss L. 17 January 1851, at 7 o'clock in the evening. Dr. M. to-day year. The Hague, 10

April, 1850."

Confronted with such overwhelming evidence he capitulated and had to acknowledge that his whole philosophic view of life was crumbling to the ground. His last hope, though a forlorn one, was that maybe Dr. M.'s date of death would not come true. He was wrong. In the town's registers of births and deaths the reader will find that not only Miss Louise Geertruida L. died on 17 January, at 7 p.m., but also that Dr. Willem Hendrik M.'s death was on 10 April of the same year, exactly as the clairvoyant had foretold.

One of the Dutch physicians who remained a believer in animal magnetism all his life and worked with many somnambulists was A. Hoek. He was, however, a man who was quite convinced that there was a good deal of humbug in clairvoyant manifestations, and he gave it as his opinion that clairvoyance was a rare occurrence (16). As regards precognition he only mentions one instance which he was able himself to verify. It is in his little book (18), in which he describes the cure of a young woman showing all the symptoms of

insanity.

The patient, Miss B., born at Delft, and 22 years old, had been completely insane for five months. As a last resort Hock had been asked to magnetize her, which he did for the first time on 12 December, 1850,¹ and the patient immediately fell into a somnambulistic state. Hock seemed to have had a great sympathy for the girl for he took her into his house for treatment, which rather annoyed Mrs. Hock as he seemed to have had more than professional interest in her. The case of Miss B. is an extremely interesting one, as in the somnambulistic state she started a kind of psychoanalytic treatment upon herself, relating why she had got these fits of insanity. The girl had had a very unhappy youth and several

¹ Note that this incident occurred 18 years before date of publication.

frightening episodes had unbalanced her emotionally. Most of these episodes had happened in her ninth year. By speaking of these episodes in all their details she underwent a kind of mental catharsis and her condition slowly got better. It was also found that her fiance's suicide, after she had broken off the engagement, had caused a severe mental trauma. In the course of the treatment a secondary personality made its appearance who directed the cure and indicated what had to be done to restore the patient's health and mental sanity. In the somnambulistic condition it was predicted, several months beforehand, that her last attack would occur on 10 May 1851, a prediction which was realized. In the course of one of these somnambulistic states she predicted that she would go to Java some years later, contract a happy marriage there and have several children. In 1868 Hoek received a letter from her, stating she had married a headmaster in Java, was very happy and that several children had already been born to her.

REVIUS, RIKO AND THE LATER HYPNOTISTS

We may regard J. Revius (19) as one of the principal representatives of the transitional period between mesmeric times and those of modern Spiritualism in the Netherlands. He could be considered as a man who had nominally given up his somnambulistic and animal magnetic notions and had gone over to Spiritualism, but had taken all his ideas and concepts with him. In his publications one can clearly observe how somnambulism and Spiritualism mingle and how the latter drew heavily upon the former in all its manifestations and conceptions. The next case shows that somnambulism as such is not an infallible method of inducing paranormal phenomena at will in subjects but that it can only bring out what is already latent and potentially present in the subject.

Revius wrote (19, pp. 93–99) that in the autumn of 1860 he met a healthy young lady, 22 years old, whom he did not know. Those present in the room, where he paid his visit, soon started to talk about table-tilting and then some of the young people began to experiment with the table. Very soon after they had gathered round the table he observed that the hand of the young lady that was lying upon the table began to move in a spasmodic manner. He put a pencil in her hand and at once she started to write. Directly after having written the first word she fell into a magnetic sleep.

Some days later Revius again met the lady at his friend's house.

He requested her to shake hands with him, and directly upon touch-

ing him she fell into the mesmeric sleep.

It appeared that she was suffering from swollen glands in one of her breasts, caused by a fall against a cupboard. According to the instructions received in the somnambulistic state the breast was treated with compresses of magnetized water. In six weeks' time she was cured. In the meanwhile a very close *rapport* had developed between the young lady and Revius and there were constant indications of telepathic contact between the two.

One day wishing to try the experiment whether she would be able to guess his thoughts, or rather know them, at a distance of 120 miles, the lady living in the east of Holland while Revius had his home in the west at The Hague, he wrote on a piece of paper: "embrace my photograph". After writing these words, he breathed upon the piece of paper, folded it in two and glued down the edges. This piece of paper was enclosed in his letter to her. In the letter he wrote that he wanted her to read what was said upon the glued down piece of paper, without opening it. After having read the contents clairvoyantly, she should note down her impression, and only after having done all this was she to open it in the presence of witnesses, and compare her impression with what was actually noted down upon the little piece of paper.

While reading his letter her hand got hold of his photograph, which she embraced, and wrote down the exact words he had jotted down on the glued down paper. Her mother and sister were present

and witnessed the opening of the sealed paper (p. 95).

Again, on Friday, 8 November 1861, Revius wrote her a letter, saying that she should try to know what he had written on a separate piece of paper, while he was busy writing to her. This time, however, he did not enclose that piece of paper in the letter but kept it on his writing-desk. He also wrote her that he wanted her to fall into a somnambulistic sleep at 5 p.m. To do this she had to seat herself before a table on which she had to place writing-material and some paper beforehand.

She received his letter on Sunday, 10 November at 8.30 a.m. and answered him that same evening that she had read half of his letter and then suddenly put it down unwillingly. Her hand started to tremble violently, and was, so to speak, drawn towards her dressing-case. It took from the dressing-case pencil and paper and wrote only the words: "Go forth, embrace your mother". These were almost the words Revius had written on a piece of paper while composing his letter to her on 8 November. He had not in fact thought of the

words: "Go forth", for he had presumed that she would read his letter in the presence of her mother, while actually she did this in her own room. She further wrote in her letter that in the afternoon she fell asleep very soon and slept excellently. Even before 5 p.m. she felt an inclination to fall asleep. Greatly interested, her mother remained in her room and took care that she should not be disturbed. It was quiet and dark in the room. She remained asleep until 6 p.m. and then wrote what was enclosed in her letter to him. The last sentence of the letter said that Mr. Revius was thinking of her with great intensity at that very moment. Knowing that she would be in a magnetic sleep at that hour, he had centred with great interest all his thoughts on her. To be quite sure that what he had written down for this experiment would not be communicated to her before she had received his letter of 8 November, he informed some of his friends about this experiment only on 11 November, that is to say after her answering letter had been posted on 10 November, which he expected to receive on 12 November, and actually did come on that day.

Revius further wrote (19, p. 97) that in his letter of 17 November to the same young lady he said that she should try to know the two thoughts he had written down in his notebook while composing the letter. These thoughts were: (1) I wish to know what we have to understand by "the unconscious life", and (2) If there exists a manner or method, by way of which I and other persons could know your thoughts by a kind of transference, I desire to become acquainted with that manner or method.

In reply she answered on 19 November that while reading his letter she imagined that she knew his thoughts. Was it really his desire that she should give him a description of the power that made her write in the magnetic sleep about the so-called "unconscious life"? Also, he desired to know what that power could do for other people and what relation existed between his magnetic power and her newly formed impressions. Revius's comment regarding the answer to the second question was that the conformity between question and reply was none too clear.

One of Revius's contemporaries and just as deeply influenced as Revius by both animal magnetism and Spiritualism was A. J. Riko (20, 21). He tells us in his book (20) that he once had an excellent magnetic subject whom he could bring into a somnambulistic sleep at any moment he chose to do so, and without her knowing anything about it. He succeeded in putting her to sleep, regardless of distance and intervening walls or obstacles. He claims to have proved his power over his subject several times to the in-

mates of the subject's house and members of her family. As Riko does not mention any special instances with a detailed description of what happened during such a case of mental suggestion, I need not go any further into what Riko calls "spiritual correspondence".

In this same book, he also records the fact that in the year 1861 he made the acquaintance of the young lady, that excellent subject of Mr. Revius whom we have mentioned above. Riko says that though the young lady was not very keen herself about the experiments Revius conducted with her, she dutifully put herself at his disposal as she felt very thankful to him as he had cured her in the course of a magnetic treatment. Riko writes that there existed such a telepathic *rapport* between the two that every time Revius sent her a present, such as a book or some music, she used to thank him for his gifts before the articles had come into her possession.

Riko writes (20, pp. 249–252) that "one day Mr. Revius received a letter from this lady saying: 'Yesterday, at about 3 o'clock in the afternoon, I found myself in your office, and I seated myself at your right-hand side. You were busy writing a letter to me but I was unable to read what you wrote. You folded the letter, and added one of your photographs to the letter, after having chosen one from a number of photographs. Letter and photo you then put into an envelope. I expect that letter tomorrow. For more than an hour I stood in your neighbourhood but you did not perceive me, which greatly surprised me. I was also astonished to see that I could not warn you that I was standing in the room.'

"All these impressions seemed to have been quite correct, as appeared from Mr. Revius's letter which had crossed the one the young lady had sent off. In Mr. Revius's opinion this case is proof of the possibility that a person's spirit or mind can travel out of the body."

Riko further wrote (20, pp. 250 ff.) that if the young lady lent herself for Spiritualistic experiments, extraordinary manifestations took place. Heavy objects moved about, simply because she willed them to do so, and all this in full light and without any contact. Sometimes it happened that some piece of furniture was set in motion with such strength and power, while putting only her two fingers upon the object, that even the combined strenuous resistance of two men could not stop it in its course. It also occurred more than once that she, sitting on her chair, was transported from one side of the room to the other, chair and all.

She was a highly gifted clairvoyant. Several times Mr. Revius asked her, while they were having a séance, to leave the sitting-room

and stay for a moment in his office, farther away in the house. When she had entered the office, he would write a sentence or a question on a piece of paper. Every time she was able to perceive what was written on the piece of paper during her absence from the sitting-room. She was also able to read printed or written matter folded in a cloth or put in a closed box.

On a certain occasion, while the young lady was busy in the living room of Mr. Revius's house and he was sitting before his desk in his office, the latter requested one of his employees to write something, it did not matter what, on a piece of paper. When he had done so, he was asked to put that piece of paper in an envelope and close it, without acquainting Mr. Revius of what he had written. When all this had been done, the young lady was requested to come to the office, where she was presented with the sealed envelope. After standing quietly for a few moments, she pressed the finger-tips of both her hands against her forehead, and then remarked: "You did not write this".

"That doesn't matter," said Mr. Revius, "please write the same words on the outside of the envelope." She took Mr. Revius's hand and placed it for a moment against her forehead; directly afterwards she took a pencil and without a moment's hesitation she wrote down a sentence. The envelope was opened. It was found to contain a folded piece of paper on which the same words were written as those jotted down by the subject on the outside of the

same envelope.

An example of what looks like pure clairvoyance is described by Riko (20, p. 253). He stated that a medium in The Hague on more than one occasion was able to give a demonstration of the faculty. A book was taken out of a bookcase at random, no one knowing the title of the book or what it was. A paper-knife or some other flat object was then slipped between the pages of the book and the medium was asked to reproduce the first word appearing on the top or bottom of the page. The medium then took a pencil and wrote down the word which, after verification, was always found to be correct. Riko added that none of those present believed that the phenomena were produced through the action of the spirits.

In considering this account, it is interesting to observe how Riko stated that the company did not know the title of the book and the medium had no knowledge of it. No details whatever are given to show that this was possible or even likely. Although the paper-knife was slipped between the pages of the book, Riko states that what the medium was asked to produce was the first word appearing

on the top or the bottom of the page, whereas of course there were two

pages to choose from.

In the course of his work Riko came across a number of subjects who were able to produce, according to himself, remarkable phenomena. In a paper (22) published in 1893, he described the work of three of his subjects and he mentioned the fact that in every case he was able to produce mental suggestion at a distance.

In one of these cases the subject was a man who consented to demonstrate his powers in a large hall where Riko had collected about 150 persons from the educated classes. The subject stood at one end of the hall, while Riko went to the other end and invited as many people who felt so disposed to come and form a large circle around him, while the rest of the audience remained seated. Riko then asked one of those standing near him to give a tug at his coat as a sign that the subject at the other end of the hall should fall into the magnetic sleep. After the sign had been given he concentrated his will on the subject falling asleep and at that very moment the somnambule sat down and fell into the magnetic condition. another kind of signal had been agreed, Riko stated that he was able in the same way to make the subject play the piano, or to stop playing it, to make him sit down upon a chair, or stand upon it, to take off his coat or to put it on again. These phenomena were, to Riko, clear proofs that will-power alone "can have a magical influence when exercised at a distance" (p. 174).

Another of his subjects, a young lady sensitive, was also able to demonstrate telepathic influence exercised by Mr. Riko, who acted as mesmerist. In order to satisfy a sceptical friend who was acquainted with the subject, Riko made an agreement with this person that, when they were together visiting the somnambule, Riko would, at an agreed sign, will the subject, without giving any indication, to go to the fire and see that it was burning correctly. His friend arrived at the somnambule's house before Riko had come, the latter arriving

about half an hour later.

While the two men were talking with the subject, Riko's friend gave him the agreed signal. Immediately the lady got up from her seat, walked to the fire to see that everything was all right and returned to the table. Somewhat later the three played a game of cards and again the signal was given with the same result. The phenomenon was repeated so many times that evening that the lady at last exclaimed: "I do not know what is the matter with me, but I do not seem able to leave that fire alone!" (pp. 177–178).

In this case it appears that the subject in question was not put

into the magnetic sleep and therefore seems to be an instance of mental suggestion at a distance exercised upon the subject in normal state.

In another case Riko stated that one of his other patients, a rather dull girl, fell asleep whenever he gave the order, even when he was at a distance of several miles from the patient's house. He claimed that the moments at which he gave the order to sleep coincided every time with the falling asleep of the subject according to what had been noted by the girl's parents.

It is extremely difficult to evaluate the paranormal character of the cases mentioned by Riko. He was himself completely convinced that he witnessed mental suggestion in the cases he discussed. But he gives so few details and indications about the exact conditions prevailing during the experiments that we cannot be in any way certain that the subjects were unable to get impressions by sensory cues of what they were expected to do. In view of Riko's position and good standing we may perhaps eliminate blatantly fraudulent practices in these cases. It must be remembered that Riko was not a professional mesmerist who made money out of public performances. Thus it seems possible that mental suggestion may have been present in the cases he describes and another fact which perhaps may be of some significance is that of all the very many people Riko mesmerized and with whom he experimented he only mentions a very few cases in which the subjects were able to demonstrate paranormal phenomena.

When investigating the subliminal self in 1895, Mr. F. W. H. Myers contributed a paper (24) on the subject to the *Proceedings* of the Society for Psychical Research and included in it an account by Dr. F. van Eeden, a physician in Amsterdam and a corresponding

member of the S.P.R.

"On January 11th, 1892, I treated Miss M. for hysteric aphonia. I sent her to sleep in my own study. As she showed signs of simulation, and seemed to need an energetic treatment, I threatened to throw a glass of cold water in her face, if she did not speak immediately in a clear voice. I was obliged to fulfil the threat with the expected result. She awoke and spoke in a clear loud voice. This was the first time in five years' practice that I took this measure, and I told nobody of it."

Two days later another patient, Miss F., was again treated in the same chair in his consulting-room. She had been treated several times before, always in the same place and easily passed into a quiet sleep. This time, however, she told him after the treatment had been

concluded that her sleep had been much disturbed, for she had heard him saying in a threatening voice that he was going to awake her by throwing a glass of cold water in her face. As she was very afraid of cold water she was, therefore, in a state of constant fear and uneasiness. The fact was that van Eeden had said nothing of the kind, had not left her alone in the consulting-room and had not spoken to anybody of the previous incident with Miss M.

In corroboration of the physician's statement, Miss A. F. consented to supply her own version, which is dated August 13th, 1895. Saying that often during her sleep she seemed to hear voices speaking at a distance, though not to herself, she went on to say that on this special occasion she had distinctly heard the physician's voice saying: "And so I threw a cup of water into her face". She went on to mention, that having a particular dislike of being frightened, she thought how very angry she would be if van Eeden had behaved so badly.

Dr. van Eeden considered this a very strange case of telepathic influence and if he is correct in stating that he told no one of what had occurred two days before at the session with Miss M. and it is certain that Miss M. was not acquainted with Miss F., or anybody who could have told Miss F. the facts, then the theory of telepathic impression would appear to have some support.

FINAL REMARKS AND OBSERVATIONS

One of the facts that emerges from a study of the literature of animal magnetism in the Netherlands is that the accounts of alleged paranormal phenomena in the mesmeric trance are so rare. And if they do occur they appear in connection with only a few subjects who were described as being gifted in this respect. It cannot be denied that during the decade 1810-1820 a great number of persons were magnetized, generally for therapeutic purposes, and thereby often brought into a more or less profound state of somnambulism. But relatively very few were credited with being able to produce phenomena which, according to our modern views, may be regarded as of a paranormal nature. Several competent authors on the subject complained of this rarity and if they do mention it from their own experience the phenomena concerned generally occurred in connection with a single subject. It is, of course, true that a great mass of observations have never been published but, nevertheless, the evidence we possess seems strongly to support the presumption that the manifestation of paranormal phenomena is exclusively bound up with the constitution of each individual and that it does not seem to

be the result of a faculty inherent in every human being. Once a person possessed that faculty it would seem that it was easily stimulated to manifest itself under the conditions and suggestions present in the mesmeric situation, together with the *rapport* which was quickly established between mesmerist and subject. The situation, indeed, did not differ essentially from that seen during modern hypnotic sessions. Any difference should, perhaps, be sought in the suggestions brought to bear on the subject, either by the mesmerist himself or by the cultural patterns and climate to which the somnambulist was subject. Another factor that may have been of great importance in influencing the successful emergence of paranormal phenomena was, perhaps, the close ties that in early days were invariably allowed to develop between mesmerist and subject and which easily induced the latter, if female, to offer, so to speak, her paranormal gifts as a love-token to the mesmerist. The fact that in most cases mesmerist and subject were of different sexes strengthens the theory that erotic interests may have furthered the manifestations of the paranormal and those phenomena believed by the subject to be pleasing to the mesmerist. It would seem, also, that the mesmeric situation whereby a lengthy contact is established and maintained between mesmerist and subject, as described by writers like van Ghert, Hoek, Revius and others, is in many ways beneficial to the arousal of paranormal faculties if these are assumed to be dormant in the subject with whom experiments are made. It is, indeed, almost certain that the magnetic manipulations and the rather intimate personal relations between magnetizer and subject had an advantageous influence in this matter, since it must not be forgotten that in many cases the somnambules were hysterics and suffering from various nervous disorders. The success of A. de Rochas and several other French investigators who applied the same methods eighty years later is probably to be attributed to the same situation and the relationships they were able to create and it must be remembered that they were constantly on the look-out for phenomena of this nature.

The reader of this section will have observed that practically all parapsychical phenomena (ESP, precognition, etc.) were already known 150 years ago and that even object-reading (psychometry) had already been developed and extensively used as a means of diagnosis. On the other hand, there would appear to be very little mention of the occurrence of any physical phenomena. It was only forty years later when, through the influence of Spiritualism, physical phenomena began to be familiar to European investigators that a few somnambulists were reported as being the centre of such

manifestations as raps and the movements of objects without contact. For example, if the accounts are to be believed, one of the subjects associated with Revius seems to have been a versatile medium not only in the region of mental phenomena but also giving demonstrations of physical phenomena in excellent light. There seems little doubt that these exhibitions of physical mediumship were given a starting-point through the growing influence of Spiritualism in Europe, an interest which was much stimulated in the Netherlands by the visit of D. D. Home to Holland in 1858. (See 23).

In concluding this survey of paranormal phenomena in the Netherlands as seen in the mesmeric situation from 1800 to 1900, it will be observed that there are practically no detailed experiments recorded which would be likely to carry conviction to the minds of any critical students of the subject. In this connection, however, it cannot therefore be concluded that no paranormal phenomena ever occurred with Dutch magnetic subjects. All we can say is that the evidence presented for such occurrences is no more sufficient to compel belief that it is in the case of so many of the other somnambules working at the time in different European countries. Were modern experiments to show that conclusive evidence is to be obtained as to the real existence of such faculties as mental suggestion, eyeless-sight or travelling clairvoyance then, perhaps, we might take a more favourable view of accounts of such phenomena recorded in earlier times. The situation being what it is, an attitude of suspended judgment might perhaps be considered by some the best one to be adopted at the moment of writing.

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Hypnotism in Germany

by LISELOTTE MOSER

Dr. phil., Diplom-Psychologin

Translated from the German by ERIC J. DINGWALL

"Der hat die Macht, an den die Menge glaubt."

FREDERICK THE GREAT

Introduction

In Germany towards the beginning of the nineteenth century animal magnetism was studied mainly for its use in medicine and if supposedly occult phenomena occurred these were not dealt with on any adequate experimental basis.

Mesmerism was greatly influenced by Puvségur, who in some quarters was even more influential than Mesmer himself. His ideas anticipated the dawn of romanticism; and even before the beginning of the nineteenth century conceptions of a spiritualistic nature began to be formed. The school of nature-philosophy (Naturphilosophie) also began to affect current ideas. Kieser and others wrote lengthy works and their somnambules claimed to exhibit a variety

of paranormal phenomena.

The first systematic treatise appeared in 1811 from the pen of Carl Kluge and later writers followed his lead in the compilation of detailed treatises and articles. Among these the famous book by Justinus Kerner on the Seeress of Prevorst aroused considerable interest, but from 1850 to the end of the century mesmerism became less and less favoured, giving place on the one hand to Spiritualism and on the other to hypnotism and its relation to therapeutics rather than to the alleged paranormal phenomena so popular with the early writers.

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Hypnotism in Germany 1800—1900

THE DEVELOPMENT OF MESMERISM

Much of the literature on animal magnetism in Germany has been engulfed in a flood of unprofitable controversy, critical reports and wild theories. The purpose of our work here is to salvage what has fallen unjustly into oblivion and to preserve that which might in the course of time have been irretrievably lost. Indeed, after the holocaust of the second world war it has become difficult to gain a fully balanced survey of the German literature of animal magnetism.

Much that must have seemed enigmatic in mesmerism in the nineteenth century has lost its mystery in the light of modern neurology and psychiatry. Yet even today the paranormal phenomena accompanying mesmerism (when not attributable to fraud) remain unexplained and inexplicable. In the present work it must in the first place be asked if the observations and experiments carried out at that time can withstand critical analysis according to modern standards of psychological investigation.

What today we call mesmerism or animal magnetism must be regarded as being as old as humanity itself. In the course of centuries "magnetic" phenomena were merely interpreted in different ways and the condition induced by different methods. What was once magic and mystery became in the Age of Enlightenment [Aufklärung] a scientifically based method of healing.

i. The Theories of Mesmer and Other Magnetizers

Magicians and healers have existed at every period, as they did in the time of Mesmer, and the methods and results of Mesmer's healing scarcely differed from those of the Jesuit Fr. Gassner, which were regarded as highly controversial. While the priest Gassner, however, regarded his cures as due to exorcism, the physician

Mesmer gave a scientific explanation for the results of his own. In his failure to appreciate the common basis of his method, Mesmer disapproved of Gassner's methods in his cures, regarding them as savouring of superstition (1; 2, p. xiii). It is in no sense true to say that Mesmer was the discoverer of a method of healing which up to his time had remained unknown, a claim made for him by his adherents. His merit consists solely in the fact that he was the first to have attempted a scientific explanation of the phenomena.

About Mesmer himself we know but little It is not even certain if he was of German or Swiss nationality. Born in 1734, he was the son of a minor forestry official, living in the country near Lake Constance. Contrary to his own inclinations, he studied philosophy and theology at the Jesuit College at Dillingen in Bavaria. After completing his studies and obtaining the degree of Magister artium he arrived in Vienna where he studied physics, mathematics, law and finally medicine for six years. In 1764, when 30 years old, he successfully graduated in the Viennese medical faculty. In his dissertation we can already find the origin of his later theories concerning the actions and reactions between all beings not only on this earth but throughout the universe. During the whole of his years as a student, Mesmer had maintained himself by means of various stipends and fees paid for private lessons. Now he married a rich widow, maintained a large house and became a much sought after physician. He must have been a good-looking man with an imposing demeanour.

In 1772 he began his first experiments in healing through the use of metal magnets. Such a procedure, among others, was well known in the ancient world, where calamites were used, probably on account of their alleged magnetic qualities and Mesmer had some striking results. He soon noticed, however, that the influence on the diseased organs was much more marked when he merely used stroking movements with his hand than when he employed the magnet. From this he concluded that in the human body there must be a more strikingly powerful magnetism than in the mineral

magnet.

The results of Mesmer's healing methods were so sensational that his colleagues in the Viennese faculty began to look on him as a

¹ For example Dioscorides, the eminent medical botanist who lived about A.D. 100, mentions the effect of the magnes lapts for purging humours. See (3, lib. 5, cap. 93, p. 716) and cf. the notes (4, p. 36) by the sixteenth-century Italian botanist and physician, Mattioli, who discusses the use of magnetic substances in medical treatment. Cf. also (5, 6).



F. Anton Mesmer

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fraudulent quack. Embittered by their attitude, he left the city. In vain he appealed to the leading academies; scientific recognition was denied him. In Paris, also, where as a celebrated and fashionable physician he enjoyed the protection of high patronage even at the Royal Court, the Academy passed a crushing verdict on his methods of cure. In the disorder that followed the French Revolution Mesmer lost both his patronage and his fortune. He passed the last decade of his life in complete retirement in Switzerland, where, in 1815, he died at the age of 81 (1, 2, 7, 8, 9, 10).

Mesmer believed that he had discovered in magnetism a panacea for all diseases. At the magnetic sessions strange scenes were enacted, especially in those public establishments for cures where Mesmer's supporters treated their patients who were grouped around the *baquet*, a kind of apparatus used for the magnetic treatment. A contemporary source (11) gives the following description

of the scene.

Patients of both sexes sat round a large wooden tub (the baquet) which contained the magnetic energy. The upper section was provided with holes from which iron rods protruded and it was from these that the secret force was directed on to the patients. Each held a rod which by means of a joint could be directed on to the affected portion of the patient's body. A cord passed round the body, joining the patients to one another, this being done so as to increase the magnetic energy through the connection. For the same reason the magnetic chain was formed from time to time when each person placed his thumb between the thumb and forefinger of his neighbour, pressing the two thumbs together. Around them walked the heirarchs of magnetism, holding iron rods in their hands and magnetizing the patients, sometimes pointing their fingers or rods at the faces, over or behind the heads, or at the afflicted parts of the patients' bodies. They alternately stared at the patients or magnetized the magnetic poles of the human body, the cardiac region, the false ribs and the belly. This operation was the most usual and often continued for a whole hour, while an orchestra accompanied this treatment and played the sweetest music. It is difficult to form any idea of the kind of phenomena emerging from these methods. Some fainted: others were seized by twitchings and convulsive movements of the limbs: some cried and others laughed, while others again fell into one another's arms.

It was said that even more sensational phenomena were observed, for somnambulistic conditions were associated with the crises and convulsions. The patients fell into twilight states, similar to

the conditions that today are evoked through hypnotism. What was remarkable about these twilight states was that the patients developed what seemed to be clairvoyant faculties. Mesmer had already observed such paranormal phenomena before he arrived in Paris. He did not, however, lay much stress on this fact, for he regarded somnambulism as something purely natural. Also, he foresaw that such phenomena must attract visionaries and crowds of swindlers whereby the reputation of magnetism would suffer even more than it had already done (1, 8, 12, 13).

Quite apart from the school of Mesmer stood the Marquis de Puységur. In 1784, after he had accidentally learned to recognize the phenomenon of somnambulism, he thought that he had made a discovery of a revolutionary character. Just as Mesmer had thought that the crisis and convulsions in the magnetic treatment were necessary for healing, so Puységur believed in the necessity for somnambulism.

The curative methods of the military officer, Puységur, became immediately widely disseminated both in Germany and Switzerland. Mesmer, physician and versatile savant, was not able to succeed with his own methods to the same extent. Several factors might have contributed to this advantage enjoyed by the methods of Puységur. In the first place, the refusal of the Academies to recognize the celebrated and fashionable physician as a scientific worker made Mesmer's position impossible. In particular the refusal of the Paris Academy, which was also the voice of authority in Germany, sounded like an excommunication. Secondly, the failure of Mesmer as a scientist must be connected with the fact that in none of his writings had he systematically described his methods of healing and how they operated. Instead of simple facts he presented unprovable hypotheses: instead of objective exhibitions, mere theatrical patter. Meanwhile, the magnetic phenomena were actually in existence and the need for some explanation of them could not be rejected. This circumstance must have been conducive to the success of Puységur, to whom the odium of academic disapproval was not attached and who appeared to disagree with the unconvincing theories advanced by Mesmer. A further reason for Puysegur's success lay in the one-sided form of Mesmer's theories, which were based on the assumption that magnetism was entirely due to physical causes. Although Puységur, as his loyal pupil, still firmly believed in the existence of the magnetic fluid, he recognized that what was of prime importance was the influence, later to become known as hypnosis.

Mesmer's theory was still stamped by the ideas current in the age of the Aufklärung, while Puységur's conception anticipated the dawn of the spirit of romanticism. The practical advantages accruing from the treatment favoured by Puységur were also not without importance, for the reactions of his patients were not so violent and terrifying as those induced by Mesmer's methods. Instead of suffering writhings and cramps, his patients sank into a quiet sleep.

The better known among the German magnetizers of the eighteenth century were prominent physicians who, in apparently incurable cases, tested the magnetic treatment as a last resort. The results that they achieved in these desperate cases were, in their opinion, more important than the peculiar phenomena of the somnambulist state. Paranormal phenomena, and above all clairvoyance, appeared only rarely and were accepted quietly and objectively by the physicians. These phenomena interested them in the first place in their relation to the success of the healing process. True to the spirit of the Aufklärung they diligently collected observational material, kept to a great extent very accurate diaries on medical procedure and attempted to draw theoretical conclusions from their collected clinical experiences. Like Mesmer himself they perceived that the magnetizing physician caused an invigorating tenuous agent to enter the patient like a stream. The drift of contemporary thought had necessarily to lead to a physical theory No followers, however, of Mesmer's theory appeared, many or them even refraining from mentioning Mesmer's name (14, 15, 16).

Meanwhile the magnetizers were exposed to the angry attacks of their conservative colleagues who accused them of quackery, in not of actual fraud. In many places, as for example in Prussia, Hanover and Austria, the authorities both interfered and persecuted the magnetizers through commissions of enquiry and prohibitive measures.¹

At the beginning of the nineteenth century, a new tendency began to make itself apparent. The spirit of the Aufklärung gave way to that of romanticism. Sound common sense was superseded and emotional life again came into its own. The somewhat superficial and mechanistic view of the world in the Aufklärung no longer found favour with the romantic man: he was searching for mystical forces and laws active in this world.

As before, magnetism was investigated and experiments under taken, and meanwhile the outlook of the scholar became wider. The investigators were no longer satisfied with sober conclusions

¹ For conditions obtaining at this time see, among others (17, 18, 19, 20).

drawn from observation and experiment; rather they took the opportunity to discuss in philosophical terms the underlying causes and the deeper meaning of the principal phenomena. Now physical theories were supplanted by those of a spiritualistic nature. The theories of the fluid and of reciprocal magnetic action between men and the external world gave way to the idea that there were purely spiritual and immaterial forces which were exercised by the magnetizer upon the magnetized person. Therefore the men of the age of romanticism advanced not only theories of spiritual forces but also those relating to obviously occult powers which expressed themselves in the paranormal faculties of the somnambules. paranormal accompaniments of mesmerism, such as clairvoyance, telaesthesia, etc., were almost always aimed at in cases of magnetic cures and also often obtained. Moreover, the magnetic conditions were more and more bound up with religious fanaticisms.1 This development was finally exemplified in the case of the sensational illness of the Secress of Prevorst. The secress during her magnetic twilight states was inclined to see hallucinatory figures and to converse with them. To her misfortune, she permitted herself to be magnetized by the romantic physician and poet J. A. C. Kerner (1786-1862), who was deeply impressed by these visions of spirits and induced in the patient ever deeper levels of hysteria. In 1829 Kerner published a detailed report (27). From that time visions of ghosts and spirits spread like a plague. Many somnambules when in their magnetic states saw themselves transported to the moon or other planets where they carried on edifying conversations with the spirits of the deceased.2 A number of magnetizers treated these hallucinatory conversations seriously and published them messages from the Beyond (29-34).

Just as the artistic and every-day forms of expression were stamped with the spirit of the times, so also were the forms of neurotic symptoms. The psychosomatic conditions that in modern times tend to manifest themselves in, for example, abdominal complaints or asthmatic conditions, were in those days more likely to take the form of cramps. The man of the emotional and sentimental nineteenth century was inclined towards pomp and pathos in speech, clothing and gesture, and his neurotic crises were consequently themselves theatrical. In the more sober twentieth century such forms of neurotic expression have become unusual. During the magnetic twilight states there occurred bursts of dramatic enthusiasm which,

1 For works illustrating these conceptions see (5, 21-26).

² For a note on contradictory accounts of these travels see (28, pp. 277 ff.).

in the course of the cures, were always more and more worked up by the magnetized patients. The development of paranormal faculties during these twilight states was given special and marked attention both by the somnambules and by those observing them.

The attempted theoretical interpretations of the magnetic phenomena may be divided into three groups, the physical, the spiritualistic and the naturalistic (nature-philosophical). The physical explanation is the oldest and the original theory. Mesmer believed that the whole universe was filled with an unending, tenuous, all-penetrating fluid which was itself in constant motion, ebbing and flowing like a tide. All reciprocal action between men and their environment resulted from the action of this fluid. This action was called magnetic; the sun, moon, the earth, plants, animals, men and, indeed, everything in Nature and the Universe could in this sense be called magnetic. As an analogy with mineral magnetism, Mesmer called this force organic, or animal magnetism. This fluid (the theorists also called it the ether or life force) was neither matter nor spirit, but rather something between the two (2, 12).

The first exponents of the spiritualistic theory appeared towards 1785. They denied the existence of the fluid and referred the phenomena of magnetism to a psychic agency, to the will, the soul, or

even the spiritual world (Geisterwelt).1

Between these two groups stood the theoreticians of the school of nature-philosophy. The most important of them was Dietrich G. Kieser (1779-1862), the German nature-philosopher who refused to acknowledge any absolute division between spirit and matter. Spirit and matter were more in a relation of dynamic polarity than in a unity of opposing centres of action. The operative agent was neither fluid nor spirit but energy.

The exponents of these three theoretical positions inevitably came to quite different interpretations of the paranormal phenomena. Those holding physical theories traced back extrasensory perception and influence at a distance to a transmission through the fluid, like the transmission of light in space. The fluid, according to this conception, permitted of an extension outwards beyond the normal and wide limits of the sense organs. To the spiritualistic theorists

¹ The term Geisterwelt in German books on magnetism appears to have been used in different senses. In the late eighteenth century it perhaps could better be translated by the similarly rather vague expression spiritual world: later, however, a better translation would be world of spirits, as is clearly seen in the title of Kerner's book on the Seeress of Prevorst, where the author is obviously using it in this sense. We shall try here to translate it in the sense in which the authors discussed are using it. For further details cf. (35, p. 103) and (36, p. 78).

the interpretation was akin to the idea that, in the somnambulistic state, the soul, freed from matter, was then able to show powers of clairvoyance, influence at a distance and prophecy. Their conception of inspiration, also, lay close to these ideas, and they believed that only pure souls were capable of clairvoyance.

Kieser, the chief exponent of the school of nature-philosophy, conceived extrasensory perception as a kind of dream, raised to a higher power. He saw the cause of precognition to lie in the superior power of the emotional life over the spiritual life, an idea which today we should call regression in the psychoanalytical sense. Josef Ennemoser (1787-1854) thought (91, p. 224) that as soon as consciousness was eliminated, then the instinctive power of the spirit (which was really nothing other than the unconscious) awoke. Indeed, Ennemoser, who was inclined towards mysticism, saw in this instinctive power of the spirit a "heightened degree of the spirit", since virtue, God and immortality were so frequently the subject of clairvoyance.

Amongst the somnambules of this period, the allegedly widely distributed faculty of being able to read with the eyes blindfolded or gummed up, or of being able to hear what was whispered in another part of the house, found two different interpretations based on nature-philosophical speculation. Christian G. Nees von Esenbeck (1776-1858) believed in a concentration of all the senses within a single sense, which was heightened both in strength and extent, thence becoming paranormal. This Universal Sense (Allsinn) was not connected to any actual organ and it was thanks to this Universal Sense, called by Ennemoser the inner sense, that the somnambule was able to read with the pit of the belly as well as with the tips of the fingers, or some other part of the body (37). Other theorists traced this phenomenon back to a change of polarity within the nervous system. In such a change of polarity cerebral activity was allowed to be taken over by the sympathetic nervous system, especially from behind the solar plexus (22, 38, 39, 91). The often observed faculty of the somnambules of being able accurately to determine the time without looking at a watch was ascribed to an innate time sense in men, which was already known at that time to occur in animals.

Many somnambules asserted that they were able to observe the inner organs of their bodies and study the disturbances in those that were diseased. They prescribed all kinds of remedies, stated accurately the time of the onset of their attacks, or of their convalescence. The self-administered prescriptions were sometimes reason-

able and sometimes quite ridiculous. According to prevailing dogma, these prescriptions and prophecies were explicable through a purely inner consciousness. This insight, moreover, was not limited to their own bodies. Many somnambules described in a precise manner the diseases of other people and prescribed for those seeking help remedies which were often of an incredible kind. The sick-rooms of such somnambules could become a place of pilgrimage for crowds of believers in animal magnetism (20, 28, 33).

Kieser explained such clairvoyant diagnosis as due to rabbort, a kind of psychical reciprocal influence passing between the somnambules and the persons in their vicinity. He laid stress on the fact that all the declarations of the somnambules depended on emotional revelations and that real knowledge was out of the question. The theoretical interpretation of the spiritual visions occurring towards the middle of the eighteenth century in the somnambulistic state was partly medieval and partly surprisingly modern. the number of savants who considered the hallucinatory spiritual phenomena as evidence of the existence of a spiritual world. Dietrich G. Kieser, on the contrary, and seventy years before Freud, anticipated the recognition of an explanation through the principles of depth psychology. He taught that in the dream every feeling, idea and impulse appears in plastic form as virtually real or as a real experience. Accordingly, also, the hallucinatory apparitions are personifications of impulses and emotions or thoughts (39, p. 108). The opposers of magnetism explained the magnetic phenomena mainly through the influence of the imagination, morbid conditions. delusion and fraud (40, 41).

Not only physicians but savants of all faculties occupied themselves with mesmerism, put forward theories and carried out treatments. Throughout that period one gathers the impression that magnetizing sessions contributed a good deal to the diversion of high society circles. Among those magnetized were persons afflicted by mental as well as by physical disease. There was scarcely an ailment for which magnetism was not tested. Patients sprang from the highest and the lowest stratum of the population. Men, women, old people and children, all were magnetized (14).

In their views concerning the attributes which qualified a physician as a magnetizer and would render a patient curable by magnetism, the theorists of all schools were in substantial agreement. The magnetizer should be healthy in body and mind and he should himself be convinced of the certain success of his action. The person influenced by magnetism might be delicate and feeble and success

depended on the patient's complete abandonment to and trust in the magnetizer. From this arose the view, held by the majority of the theorists, that there must be a tendency to the somnambulistic This disposition was regarded either as a morbid constitution. nervous weakness or as a special sensibility (28, p. 161; 21, I, pp. 23, 350-362, II, p. 457; 42, pp. 82, 92; 43). The theorists of all schools were agreed that through magnetism only the stronger could help the weaker, although differing as to whether the action was exercised through the fluid or the energy of the imagination or the will or the spirit. The nature-philosophers and those who held the theory of the fluid regarded the somnambules as dependent on the magnetizer. In the eyes of believers in the fluid, the magnetizer was, as it were, the sender, while the magnetized person was the receiver of the fluid (44). According to the view of the naturephilosopher, the magnetizer passed the energy from his positive pole to the negative pole of the magnetized subject (21, I, pp. 4, 271: II. p. 295 ff.). The spiritualists only recognized such a dependence on the so-called "lower" levels of somnambulism. The more reliable the clairvoyant faculties and the more mystically romantic the modes of speech in the course of the magnetic cure, the "higher" the level of somnambulism. It was in these higher levels that the somnambule might become independent of the magnetizer and entered into relationship with higher spheres on the Other Side (23, p. 116; 27; 29).

Although the magnetizers were entirely convinced of their mental and bodily superiority over their somnambules, they tried to gain through questioning them a deeper insight into the essentials of magnetism. At the same time most of those holding fluidic and nature-philosophic views were capable of criticizing their somnambules. They always took into consideration errors and delusions in the twilight states. E. Gmelin plainly calls it disgraceful that the somnambule should be regarded as an oracle (15, p. 478). Kieser himself established that the theoretical explanation of the somnambules might sometimes be at fault, or that these explanations were copied from the theories of the magnetizers. The tendency of so many somnambules to delude and trick their magnetizer, in spite of his alleged superiority, is ascribed by Kieser to the fact that the will of such magnetizers is not pure and strong enough, so that the somnambule gains the upper hand (21, II, pp. 243-244). The spiritualists regarded their somnambules less critically. They believed that only the purity of the soul could enable clairvoyance and precognition to be demonstrated. This readiness to take what

was said in the twilight states as inspired truth must have promoted the growth of the grotesque spiritualistic aspect of mesmerism, even if it were not actually the cause of it. The spiritualists also took the trouble to control critically the paranormal performances of their somnambules. However, their arrangements for investigation and their measures of control proceeded not from their own doubts but in order to provide evidence for sceptical opponents. This attitude of the spiritualists may explain the lack of criticism and the blindness to reality with which they undertook the greatest part of their experiments and observations (27, 29, 45).

ii. The Investigation of Paranormal Phenomena

When the first reports and rumours concerning the appearance of clairvoyant faculties in somnambules emerged at the end of the eighteenth century they became forthwith the subject of bitter controversy. Following defamatory accusations and suppositions, law suits were initiated. Those magnetizers who in these controversies were the most vocal appear to have had the least understanding of what constituted evidential experiments. Even Mesmer himself had little understanding of them. In 1787 the Privy Councillor C. L. Hoffmann in Mainz challenged the magnetizers with an offer of a prize of 100 ducats to prove the reality of paranormal faculties in the somnambulist state through the following experiments.

"The first test is concerned with magnetized water. I shall have two glasses, flasks or carafes of water magnetized by the operator. From the same kind of containers I shall have ready a few more, perhaps six more or less. These glasses I shall then mix together on a table, putting them near one another and then hand them over to the magnetizer who will arrange for the water to be tasted by the somnambules or clairvoyants. If the subjects then without any doubt hit upon the magnetized glasses, then they have succeeded in the first test. It is only fair that I also cannot be allowed to cheat. I shall accordingly arrange for the glasses to be put on the table by another person and it is he who will write on a piece of paper whether the first or second carafe, etc., contains the magnetized water. He will give one sealed billet to me and the other to the magnetizer. Here again I cannot cheat with these billets " (46, p. 5).

This offer shows that within the sphere of contemporary methodical thinking lay an attempt to discover suitable methods of investigation. No magnetizer, however, could be found who would comply with the challenge.

Mesmer's hypnotic powers must have been considerable. In 1775 he put them to the test at the castle of Rohow in Hungary. A report concerning his sojourn at Rohow was published in J. A. C. Kerner's book (47) in 1856. We owe this detailed description to the family tutor at Rohow who later was the Magdeburg professor Seyfert. Seyfert states that he had been a decided opponent of Mesmer, for he had assumed fraud and quackery in Mesmer and self-deception in those cured by him. Since he was needed as an interpreter in intercourse with the country people, who spoke only Slovak, he had the opportunity to observe Mesmer closely. Behind Mesmer's back he had tried to question patients about fraudulent tricks. Provided that it was actually the case that Mesmer knew no Slovak and also had not secretly engaged a second interpreter, then fraudulent arrangements between Mesmer and the magnetized patients were completely excluded. Seyfert, among other statements, reported that a young Jew from a village near Rohow had for some time suffered from a disease of the chest. He was already so weak that he had to be brought to the castle in a carriage. Mesmer made enquiries about the nature of the illness; then he pointed for some time with his finger at a distance from his chest, and the sick man in a short time, after powerful convulsions in the presence of a number of people, expectorated profusely. After that, the Jew was always one of the first who came into the hall and one of the last to leave the house because he considered that he felt better. Some days after that first affair, Seyfert had an unexpected opportunity to make amends, which he had hitherto neglected to do. Several foreign newspapers had been kept which were much out of date on account of the distance from the nearest post office and other circumstances. In one of these was reported the case of a girl and two men, all of whom believed that they had been perfectly cured of epilepsy by Gassner through exorcism, although it was uncertain whether this had occurred on one or more than one It was said that they had suddenly fallen into their former convulsive state when Mesmer, hidden in a neighbouring room, had merely pointed his forefinger towards the place where they were. Without delay, Seyfert sought Mesmer out and found him in a room adjoining the main hall in company with several persons belonging to the aristocracy. Seyfert asked if he could be permitted to read the article in question out of the newspaper. This was willingly permitted, and having finished reading it Seyfert asked Mesmer whether it were true, to which the latter answered in the affirmative. Seyfert then asked him whether he would undertake a similar test with them. It was suggested that this time the experiment should be made through the wall and in this suggestion he was supported by the nobility present, especially by the countess herself. At first, Mesmer was reluctant and this refusal revived Seyfert's doubts about him. Mesmer, however, on account of their importunity had finally to comply with the request. He then went into the hall, fetched the young Jew as being the most sensitive among the magnetized circle and placed him with his back close to the dividing wall. He then returned to the other room and took up a position about three paces from this wall. Now the door which led into the hall had two folding portions, of which only one was closed, so that Seyfert stationed himself on the threshold and thus found it easy to observe both the Jew in the hall and Mesmer in the next room. With his right hand he held the other section of the folding door so close that no one else could see out of the hall into the room, or out of the room into the hall.

After a few minutes Mesmer, with the index finger of his right hand, made some horizontal movements in the air in the direction where the Jew was standing. This had not continued for long before the Jew made some grimaces, put both hands on his hips, sighed miserably and made some movements as if he were suffering. As Seyfert was not satisfied with what he saw he asked the Jew what he was feeling, to which he replied that it was very painful for him. When he was asked again if anything peculiar was happening to him he said that something was moving across inside him backwards and forwards. Seyfert, in order to avoid asking questions, told the patient to let him know at once of any changing sensation that he might experience, without waiting to be asked about it. Soon after this Mesmer crossed his arms. Scarcely eight seconds had elapsed before the Jew said of his own free will that the feeling had now ceased. When Mesmer began to make oval movements with his fingers, the Jew writhed and said that now everything was going on inside him up and down in a circle. Scarcely had Mesmer again ceased to move when the Jew declared that everything inside him had now become quiet. Mesmer afterwards continued his movements, changing their character, and the Jew, after a longer or shorter period of time, accurately reported these.

It seemed to Seyfert that in this case no previous agreement or anything in the nature of fraudulent collusion was possible. Moreover, simple imagination during the test could not in any case have registered so strikingly so many variations in both time and direction. The following year the patient happened to see Seyfert by chance in a street in Sobotischt, quickly walked up to him and made some

warm enquiries about Mesmer (47, pp. 27-30).

A normal psychological explanation might perhaps be found for this apparently telepathic phenomenon. For instance, might it have been possible that it was Mesmer's habit to make his magnetizing movements during the treatments in a fixed and rigidly maintained series, which in these particular experiments he had repeated? However, such a stereotyped procedure would probably have been noticed by Seyfert from day to day and this possibility can consequently be put aside. Further, it is to be noted that Seyfert had written his report thirty years after his experience of the experiment and it is improbable that so detailed an account taken from memory would prove to be accurate and it should be received with caution. Above all it is to be regretted that the recorded experiment was not systematically repeated with variations in the series of movements made by Mesmer. It would also have been a more convincing method of experimentation if it had taken place behind closed doors. It would then have been sufficient if the movements of Mesmer and the statements of the patient in another room had been accurately controlled by a watch and agreement both temporal and spatial of the cessation of the passes had been decided on the basis of a written protocol.

It is understandable that the house tutor would hardly dare to offend the owner of the castle through open distrust and a detailed arrangement for the experiment and that Seyfert was most deeply impressed by this demonstration by Mesmer. Mesmer himself, relying on his own feelings of superiority, laid no stress on the value of making such experiments evidential through strict control conditions. Assuming that hypnotic-telepathic phenomena are actually possible, we gain the impression that Mesmer with a little extra insight might have gained proof of their existence. What, however.

remains of the anecdote is regret over a lost opportunity.

The same considerations apply to another episode at the castle at Rohow. In this case a peasant coming from a place near by had for a long time been complaining of a certain feeling of hardness in the stomach which caused him much trouble and often a good deal of pain. Seyfert translated the facts in this story to Mesmer, using non-medical language just as the peasant had done. Mesmer investigated the hardened swelling, made him sit down on a chair placed apart from the others, gave him a wine bottle which was filled with water which he had previously held in his hands, thus

magnetizing it, and instructed him to hold it regularly to his belly. After some time the peasant received an amelioration in his symptoms which, according to his own account, became daily more marked. When one day Mesmer was charging the electrical machine in the next room with the door shut, the peasant suddenly broke out with a flood of curses in Slovak against Mesmer. Seyfert remonstrated with him as to why he allowed himself to do this, whereupon he excused himself, saying that at the moment he was suffering acute pain for which nobody else could have been responsible except the "German man" or the devil. Laughing over this foolishness, Seyfert went into the next room, where he saw Mesmer in the presence of many onlookers making the sparks fly from the electric machine. Every time this occurred the peasant sighed and ground his teeth, which Seyfert was perfectly able both to see and hear. From this occurrence Seyfert was apparently completely convinced of Mesmer's unusual powers and this could explain why he failed to give a really precise account of the occurrence (47, pp. 30 ff.).

Of some interest also is an account of Mesmer published in 1814 in which is described a psychomotor automatism. A lady in Paris who was entrusted to Mesmer for treatment experienced that form of magnetic sleep in which she retained both the power of speech and the capacity to write. One day she lost her little dog and was very despondent over this loss. After a few days she found one morning on the table by the side of her bed a piece of paper on which was written the following words: "Calm yourself: in eight days you are going to find your dog!" Having learnt of this incident, Mesmer observed the patient with especial care when visiting her on the specified day. From the early morning onwards he found her lying in her habitual sleep. Exactly at eight o'clock she told her maid to summon to her an official who was to be found not far from the house. When the man appeared she instructed him to go to a place in the street only some minutes' distance off, which she named (St. Sauveur). Here he would meet a woman who was carrying a dog which he was to claim back as hers. The man went, and as soon as he arrived at the entrance to the aforesaid street he saw a woman coming towards him with a little dog under her arm and, following his instructions, he brought the dog to the lady, where it was recognized in Mesmer's presence.

Here one has to consider the accurate and organized synchronicity of time and place, which would have been upset by the slightest divergence. This lady, also, had in her sleep seen and described

this course of events as they would occur, or rather she had actually seen them happening (12, p. 27). German magnetic literature rarely mentions automatic writing and other automatisms of this kind. Such automatisms no longer present a riddle to modern psychology. What is unusual in this report is the connection between the motor automatism and the paranormal performance, accurate as it was in both time and place. Assuming that the report is true and the occurrence accurately observed, it must be examined so as to determine whether we have here a case of precognition within a clairvoyant recognitive framework, or simply a hypnotic-telepathic phenomenon. If it were precognition, the patient might have known in deep sleep and without any action on her part when her little dog would turn up at the corner of a certain street. If hypnotic telepathy, the patient might have influenced telepathically the unknown finder of the dog so as to go with the animal to a certain street at a certain time. If we consider with what precision posthypnotic commands are carried out, we need not be surprised, also, at similar precision in hypnotic-telepathic influence. Such precision would also exclude any precognitive element in the anecdote just related. Examples of precognition, at least those regarded as such by parapsychologists, are uncertain and vague, owing to the defence mechanisms of the unconscious and also to the use of archaic language arising from the unconscious. They are of quite a different kind from the paranormal effect just described. Mesmer himself could not explain this story, although he had himself already carried out hypnotic-telepathic experiments. Apparently it had not yet appeared remarkable to him that somnambules were themselves able to exercise powerful hypnotic faculties under hypnosis (48).

However, we must remember that all these points must be considered with important reservations. It is not easy to take this report by Mesmer seriously since he names neither any witnesses who might vouch for the genuineness of the occurrence nor offers any signed attestation. As a scientific reporter he may have been writing in good faith; his method, however, corresponded neither to those of his own time nor to those demanded in our days.

During the latter part of the eighteenth century those physicians who were interested in magnetism as a curative agent, especially Eberhard Gmelin (1751-1808) in Heilbronn and Arnold Wienholt (1749-1804) in Bremen, were calmly at work. They undertook research, healed, or, in cases which proved incurable, they dissected the bodies after death, if this were possible, in order to determine

the origin of the failure. Gmelin was the first to publish a treatise on magnetism which may be considered to meet scientific standards (15).

Wienholt must have been an unusually courageous and persevering man. In 1786 Johann K. Lavater (1741-1801), on the occasion of a visit to Bremen, made him acquainted with the method of Puységur. Lavater had cured his own wife through this method. The sober population of Bremen must have paid their respects to the much-praised and much-abused preacher from Zurich as they would have done to a Messiah. When Lavater, Wienholt, and the well-known astronomer Heinrich W. M. Olbers (1758-1840) were secretly healing the sick, a veritable storm broke out. Bremen was divided into two camps: the authorities issued prohibitions: the "evil thing" was denounced from the pulpit and scenes of violence were enacted in the streets. Bremen became the subject of gossip throughout the whole country. In this situation Wienholt did the only correct thing: he let the storm pass over him, remained silent and went on with his research until he was able to offer to the public, after fifteen years' work, a comprehensive treatise on the subject. His research was typically thorough (14, 19, 49.)

For paranormal phenomena the physicians who were interested at that time in magnetism had little time to waste. With the exception of some experiments by Wienholt there is nothing worth reporting from this period. Wienholt decided on these experiments in order to test the effect of magnetism on health and, after close consideration, he chose his children as the most suitable subjects for this purpose. The children were quite calm during sleep and were less easily disturbed in it by minor external distractions. Also the nature of the tests could be easily concealed from them if they should wake up during the experiment. Wienholt considered that these experiments should not be conducted in deep sleep, in which the organ of the soul was not sensitive, and also not too near to the usual time of awakening. During the whole period the children should not be made aware of the fact that experiments were proceeding. Finally, it was necessary to carry on the experiments for a long time, constantly to repeat them and to vary the conditions.

On 18 March 1798, Wienholt made his first experiment on his eldest son, aged 15, and it was in the evening after he had been asleep for about half an hour. Using an iron key which he held at a distance of about half an inch, he made a downwards stroking movement several times near the side of the boy's face and neck without ever touching the body in the slightest degree. After

seven or eight such strokes the boy began to rub the place which Wienholt had tried to influence and as the movements continued he fidgeted, which compelled Wienholt to abandon the test. days later Wienholt obtained some cylinders made of lead, zinc, antimony and tin which, sharpened at one end, were half an inch in diameter. On 21 March, early in the morning, he began his experiment at a distance, in which he held now the blunt and then the pointed end of the metal towards the skin. His eldest daughter, aged 12 years, her younger sister of 9 and a boy of 6 were the subjects on whom these experiments were attempted. Wienholt made downward stroking movements near the cheek, the neck and the arm at the distance above mentioned and also held the different cylinders towards the opening of the ear. He also used in the course of his experiments a rod of Japanese copper, a gold medal and larger pieces of money made of pure silver. He continued making these movements over the parts which had to be influenced until a sign of sensitivity was achieved, which movements, however, occurred not more than twenty times. He carried on these experiments for four weeks, both in the morning and at times in the evening, when the children were fast asleep.

In his report Wienholt stated that the majority of the cases, almost two-thirds of them, proved to be positive, the remainder being negative. Usually, if the stroking movements were continued several times, the children shuddered, hid the part over which the movements were being made, put the head or the hand under the coverlet, rubbed the place, sat up, turned the head to the other side or shook it. The most remarkable impression seemed to occur when he held one of the pieces of apparatus towards the opening of the ear. Similar impressions were evoked when the metal was even held an inch from the ear; in this case different sensations were awakened even when on other parts of the body no sensations at all could be registered. These impressions were most frequently exhibited by his eldest daughter and most rarely by his youngest son, probably on account of his deeper sleep. He noticed no special

differences between the various metals (14, pp. 234 ff.).

Wienholt doubtless made a conscientious enquiry and he wrote a detailed account of the investigation, criticized by his contemporaries for its long-winded prolixity. However, he had to rely entirely upon his own observation to ascertain that his children knew nothing of his investigation and were actually always asleep. Further, it seems likely that he must have carried out the work in a dim light in order not to awaken the children, so that the question arises as to whether the illumination permitted sufficiently accurate observation. It is also open to question whether the various signs of sensation in the sleeping children were associated only with the magnetizing influence. It is quite possible that the children might have been disturbed, if in a light sleep, by Wienholt's presence, which might not have been completely noiseless, and consequently they made restless movements. Moreover, although Wienholt was consciously alert against self-deception, goodwill alone is not sufficient to ensure accurate observation as recent results in psychology show. If Wienholt's report can no longer satisfy modern statistical thinking, then the fault is not his, but lies in the existing stage of development of the methods of natural science.

Even if the conduct of the experiment did not leave much to be desired, it could not prove what Wienholt wished to demonstrate. He not only proceeded from the false hypothesis that metals have a mesmeric effect when applied to human beings but also overlooked an essential variable. Wienholt was apparently not aware that the proximity of solid objects can be perceived even if the skin is not directly touched, as is seen to be the case with, for example, blind persons who are able to perceive a wall without knocking into it. It appeared remarkable to Wienholt that the children reacted strongly if he held a metallic object near the opening of the ear; he did not, however, connect this observation with the special

sensitivity of the eardrum.

Wienholt also carried out some hypnotic telepathic experiments. It appears that one day at about 5 p.m. he made an experiment, the successful outcome of which Mr. R., an experienced magnetizer who had been living in Bremen for some weeks, had given him many examples. Wienholt magnetized his patient at an arranged time at a distance of a mile, through steady fixation of his mind on the object in question. According to his habitual pattern in treating her, he merely told her that he was going into the country and could not therefore magnetize her at 5 p.m. At 5.5 p.m. Wienholt began his mental exercise and kept it up for twenty minutes. He cast his glance in imagination first to the eyes and thence to the chest. He heard from his wife and reliable friends, who observed the patient, that shortly after 5 p.m. she had become restless, then had placed her hand on her head and over her eyes, complaining of pains in them, and had then fallen into convulsions and after a few minutes had then awakened from the magnetic sleep (38, pp. 233 ff.). Wienholt repeated the same experiment twice more at about 5 p.m. with the same result.

It might be supposed that this doubtless neurotic patient was conditioned to experience the day's crises at 5 p.m. and the crises might have broken out spontaneously at 5 p.m., as such spontaneous somnambulistic conditions are often observed. Wienholt, however, could not have been aware that these twilight conditions can arise in this manner. This possibility was discovered for the first time some twenty years later and, as it happened, quite accidentally, by Baron Friedrich Carl von Strombeck. The inadequate methods of Wienholt's investigation are connected with the false hypothesis that lies at the foundation of his experiment. He believed that twilight states could be induced in the patients solely through the influence of his magnetic fluid over them. From the apparent success of the experiments he was forced to draw the false conclusion that the influence of the fluid emerging from himself could be operated at a great distance. These experiments might have been worthy of notice had they been carried out in greater numbers and at different times.

Somewhat better is the design of the following experiment which a painter named Nadler carried out under Wienholt's direction. Nadler was described as a reliable and punctilious man. In his account of the experiment he states that one day he went out of the town to a distance of three miles after he had first arranged with his sister to visit his patient in the afternoon. The patient was then quite healthy and again going about her usual business. He told his sister to note accurately the time when his patient fell into the magnetic sleep without giving her any explanation of his request. He had himself secretly set his watch to agree with the time in his patient's house. Neither his sister nor Miss B. knew anything about his proposed piece of research. Nadler now magnetized his patient at this distance, simply by steadily concentrating his mind on her. Exactly at the same time the symptoms of magnetic sleep overtook her and when she was asleep she said laughing to his sister: "Your brother is responsible for this". His sister, who knew nothing of what was happening, replied, "How is that possible? He is at R, you see, three miles from here." "He can be wherever he wants to be, but I know that he is responsible for my now falling into the magnetic sleep," was the answer.

On another occasion Nadler made this test from a shorter distance, namely from his own house to hers, telling no one anything about it. The patient was standing up in her house engaged in cleaning the entrance hall. According to her mother she suddenly let the broom fall, ran into the room, fell into a chair and passed

into the magnetic sleep. In the evening Nadler visited her in the waking state. When he asked her if everything was all right, she told him quite calmly about the remarkable incident. He inquired about the times, which again coincided. He was not satisfied with these two experiments, but several others as well as this one were arranged with another somnambule and these never miscarried (38, pp. 235 ff.).

In this report we do not find detailed accounts of the times of the experiments and the regularity of the treatments that were carried out before the "treatment at a distance". We should like to know if the time of the distance treatment coincided with that obtaining from the normal treatments in order to be able to exclude the possibility of the patient falling spontaneously into the magnetic sleep at the accustomed time. It seems almost incredible that the sister knew nothing of the projected plan and it is more than probable that the hysterical and sensitive patient was influenced through the imaginative expectation of the visitor, whose task it was to note accurately the time at which a possible crisis occurred. Further, we lack knowledge of the words used by Nadler in order to obtain the information regarding the occurrence. Thus we are not in a position to judge as to whether the question asked was indeed free of any suggestion.

We should not care to cast doubt on the good faith of either Wienholt or Nadler, or in any way contest the fact that the phenomena as described may have been of a hypnotic-telepathic character. We are merely stipulating that the design of the experiment rests on an unproved hypothesis, that sources of error cannot be eliminated, that the report itself was too condensed, that sufficient guarantees against self-deception and imaginative expectation were not present, and finally that we do not find any systematic approach

in the series of experiments that were carried out.

Some Early Nineteenth-century Magnetizers

The early part of the nineteenth century was a period of many theories and few experiments. After 1810 mesmerism slowly began to gain a footing in Berlin. By chance, people were again reminded of Mesmer, who was believed to have died long ago in Frauenfeld, a small Swiss town. The spirit of the time had meanwhile turned in his favour and in Berlin a clinic was offered to him. Mesmer, however, who was almost 80 years old, felt no longer equal to such a task. He proposed to initiate Dr. Karl C. Wolfart, later a

professor in Berlin, into his teaching. Wolfart fell under the spell of the old master and became his unquestioning disciple (8, 19, 50). However, in the Berlin clinic entrusted to him little scientifically valid work was performed (51) and the views held by the Berlin professor Christoph W. von Hufeland (1762-1836) (41) were much clearer and more critical. Hufeland, who twenty-five years before had sharply attacked Mesmer, became a supporter of magnetism, although at the same time so extremely critical a supporter that the believers in magnetism opposed him violently. The magnetic treatment of his patients he handed over to his assistant, Carl A. F. Kluge (19).

Kluge, in 1811, was the first to publish a systematic treatise (38) on magnetism, although he himself seems to have made only a few experiments. Friedrich Hufeland, also, court physician in Saxe-Weimar and a brother of the professor in Berlin, published in 1811 a profound theoretical work in which one looks in vain for any

systematic experiments (52).

One of the most careful and objective critics of mesmerism, Dr. Johann Stieglitz, physician in ordinary in Hanover to King George III of Great Britain, even went so far as to say plainly that he had never taken part in any magnetic treatment because he considered it unnecessary for the understanding of mesmerism (40). Christian G. Nees von Esenbeck (1776-1858), Christoph A. A. von Eschenmayer (1768-1852), Josef Ennemoser (1787-1854) and others also founded their opinions on anecdotal material which arose to only a very slight extent from reliable sources (5, 22, 37). As a result of this over-emphasis on theoretical thought and underemphasis on systematic experimental investigation the labours of these times now appear in a tragi-comic light. For years the supporters and opposers of mesmerism continued to attack each other with spite and malice, although, or rather just because, neither the one nor the other had sufficient knowledge of the facts that lay at the basis of their academic controversy. Certain investigators, however, did provide case histories, some of which we now summarize.

Dr. Dietrich G. Kieser (1779-1862), a Privy Councillor and professor at Jena and one of the most noteworthy and successful among the philosophical physicians, developed a system of magnetism comprising the entire cosmos. Although his theories may now be outmoded, Kieser was instinctively working on the right lines, which later led directly to depth psychology. It was clear to Kieser that anecdotal material alone could not be sufficient and he demanded accurate and systematic experiments. Nevertheless,

we do not find in Kieser's work any such which were satisfactorily planned. Many, indeed, are simply of an amateurish character.

Kieser took over the magnetic treatment of the 11-year-old epileptic Anton Arst. The child was the son of a poor mastertailor and he soon exhibited an unusual clairvoyant talent (assuming the possibility of such a talent) and Kieser, who treated him without fee, was in return able to carry out many daily experiments. Anton Arst, however, was an extremely stubborn experimental guinea-pig and the experiments succeeded only when he The following experimental arrangement was in a good temper. clearly shows with what difficulties Kieser had to contend. reported that before the boy entered the room set apart for magnetizing, Kieser covered his eyes, with the excuse that he complained of pain in them during the magnetic sleep and Kieser bandaged them most carefully by means of wads of medium thickness laid over the eyes and covered by a silk handkerchief, so that vision was completely impossible. In the other room, without the knowledge of the patient, he placed a German folio Bible bound in black leather with gilt edges in which he had put on the first page four playing cards (ace of spades, ace of hearts, five of spades and three of hearts) and on the second page several coloured silk ribbons (green, yellow, red, blue and grey). After three minutes, during which the somnambule exhibited mild convulsions of the usual kind, the boy sprang to his feet, went to the pile of books and sat astride them. When he felt the Bible he hesitated, felt it, got down and opened it. Kieser told him that he might be able to see what was inside: he then took the cards, first the ace of spades, felt it and said, "Black", and then threw it under the others, so that some of them fell on the ground. When he had looked for them, he took the five of spades in his hands, pointed without saying anything to the five black pips, at the same time touching them with his forefinger, and then threw the card on one side. He then tried the three of hearts, felt one of the pips, following the outline with the tip of his forefinger, and said, "Hearts, red" and threw it on one side (48, pp. 92 ff.).

It would probably be unjust to reproach Kieser for the singularly unsystematic nature of this experiment. We gain the impression that in his relation with the difficult boy he knew no longer what best to do and so hit upon this farcical idea of the pile of books and the playing cards in the Bible. Had Anton Arst recognized in some respects the playing cards correctly, then this might have been connected with the increased sensibility of touch in the

somnambulistic state. If he were able correctly to perceive by feeling the form of the pips on the cards, then it was not very difficult to determine correctly the corresponding colour.

In the next experiment Arst was apparently more willing than at other times.

"Today about 9 o'clock [21.00 hours]," Kieser writes, "Arst was asleep after a few minutes sitting by the cord¹ of the baquet and immediately became clairvoyant. I bandaged his eyes . . . with a black silk handkerchief folded several times so that he could see nothing and led him to the window. He now again saw with his extended finger everything that was going on in the street, so that he was immediately able to perceive persons standing at the window of the house opposite, describing what they were wearing, their movements, etc. The same thing, although with greater difficulty, occurred when he stood with his back turned towards the window and it was I who directed his finger to the street.

"I then brought him into the middle of the room, and let him lie down on a long chair flat on his back, so that he could not have seen the windows of the people standing in their rooms in the house opposite, which was lower than mine. I held one of his feet, from which the shoe had been removed, although still covered by a woollen stocking, against the window and now he saw with his foot (toes) and described what was happening at the window of the other house with an account of a child that was there, the colour of its clothes, the movements of those standing by and the mother

busying herself with the child. . . .

"Before he sat down, connected with the cord, I bound up his eyes carefully with two wads and a silk handkerchief. He fell asleep, after he had stretched the cord for a few moments, and immediately became clairvoyant. Not only did he read very close print with his fingers, but also by means of them he saw what was happening in the street and also in an open square distant about a hundred and fifty steps from my house. He described accurately what was going on, people walking about and the colour of their clothes. In the same way he read with his feet and was able to distinguish all the colours, although he was wearing at the time a thick woollen stocking. The same thing happened with the knuckles of the fingers, with the bare elbows, or the nose. With his elbow held at the window he was able to see everything that was happening in the street "(48, pp. 126 ff.).

It is scarcely understandable that these amateurishly arranged and summarily described experiments are to be attributed to the clear-sighted Kieser, who repeatedly demanded impressively exact

¹ This refers to the woollen cords which led away from Kieser's baquet and which were tied to a ring at the top of the apparatus. See D. G. Kieser, System des Tellurismus... Neue Ausg., Leipzig, 1826, Vol. I, taf. 1, fig. 1, paras. 59, 60.

investigations. Even the necessity to make allowances for a difficult boy should not have influenced him to the extent of leaving to chance a crucial part of the design of the experiment, namely the

things that the boy was required to perceive.

It can now no longer be ascertained how far the descriptions given by Anton Arst agree with those of the persons concerned. It can also no longer be shown whether the persons described did not regularly pass at certain times of the day in front of the small town house of the professor and if the noise of their footsteps or the sounds of their voices when greeting each other could be recognized. At that time, without either cinema or tape-recorder, it was certainly not as easy as today to make full and accurate notes on an experiment. Even so, a sufficiently accurate report should be expected, so that it would guarantee the possibility of an exact reconstruction of the experiment.

Testimony such as "not only did he read very close print with his fingers" or "he read with his feet and was able to distinguish all the colours" is worthless. The reports fail to state how the printed matter was put in front of the boy, the precise place where the paper had been kept, the type of print, the meaning and number of those words that were correctly or falsely read, the kind and number of the correctly named colours and the persons who were wearing them—these are only some of the most obvious pieces of information that a report should contain. Kieser also knew that it was not sufficient to cover the eyes merely with wadding and a silk handkerchief. He himself, for example, recommended to Köttgen that the eyes of his somnambules should be fastened

with sticking plaster.

Somewhat more systematic is Kieser's series of investigations with different metals, with which he worked in order to ascertain the mesmeric influence on the somnambule Anton Arst. Such enquiries were much favoured by the German magnetizers. The somnambules reacted with various violent feelings of displeasure or cramps, according to the kind of metal that was brought near them. It was on such experiments that the theory was based that the magnetizer was able to transfer his fluid into metals, water or organic materials. Such organic materials were applied by the magnetizers as medical remedies. These experiments served also to support the nature-philosophic hypothesis of the transference of energy. Everything in nature could, according to this hypothesis, be more or less strongly magnetic; not only man, but animals, plants and metals. However, the theorists of the nature-philosophic

school might have known that the somnambules reacted not only to metals but also to the imaginative expectations of the magnetizer. The power and the unconscious absorption of these imaginative expectations as the result of the hypnotic rapport was certainly known

to Kieser (21, I, p. 23; II, p. 149; 40).

In spite of the false theory, the following experiments of Kieser are not without interest. He stated that previously dissimilar quantities of the sideric (i.e. metallo-magnetic) activating bodies had been used. The question was now to ascertain, through the use of similar quantities, the variations in intensity of the impressions produced by different metals. With the greatest care the substances used in the following experiments were weighed and as many large pieces as possible were taken. Each weighed exactly 17 Loth [i.e. c. 8½ oz. av. or 241 gr.] and was wrapped up in plain white paper which was both sealed and marked. In these experiments Anton was not able to distinguish any of the substances. experiments were undertaken daily with a number of changes from 29 October to 6 November. The various series of metals used in earlier experiments and recorded in the notes were on the following days again mixed up so that Anton's magnetically sensitive eye had then to classify them anew each time. When the position of the series had again been found, the metals were presented in either increasing or decreasing order of intensity of impression. Also, single metals were taken out of the middle of the series and presented to Anton's eye for comparison: however, no later change in the series of the quantitative effects found in the earlier days was later revealed.

The experiments themselves were undertaken in such a way that a single substance was put upon the table, either in the order in which it was in earlier experiments or selected at random. Kieser himself stood between the table and the boy, so that Anton was unable to see what substance he was taking from the table, and then he slowly extended the single piece till it was at a distance of half an inch before the boy's eye. Anton Arst then immediately indicated those that had previously been presented, saying he felt a bursting sensation in the eye, but did not wake from the magnetic sleep. Then he accurately specified which substance excited in him a stronger or weaker sensation, or even none at all. He also accurately determined the different intensities of the various substances that were presented (53, p. 33).

It might have been hoped that a somewhat more detailed record, with information about the accuracy of the results, was available.



Professor Dr. Dietrich Georg Kieser

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Kieser stated that each of the packets containing the metals was sealed and marked for recognition, but he does not state what was done to conceal these marks of recognition from Anton Arst. Moreover, whether the packets appeared exactly the same is open to question. Even if we assume that the experiments were carried out with the eyes bandaged, as most of Kieser's tests were, nevertheless the inadequacy of the performance and the nature of the report robs this experiment also of evidential value.

Anton Arst, moreover, certainly attempted to impose on the professor. Thus, he had a hallucinatory phantom which instigated him to perform all kinds of tricks, such as getting drunk or cutting off the buttons from Kieser's coat. Kieser himself was critical enough not to rely on the boy and to recognize the phantom as a personification of naïve impulsive desires: he also showed a flair which is inconsistent with his experimental clumsiness. We can only explain his experimental failure by the overemphasis given by the nature-philosophers to theoretical thought. In performing an experiment, Kieser was not so much attempting to find an answer to a question as to find support for his own theories.

The use of the pendulum is also one which belongs to the category of magnetic practices, since the magnetizers supposed that this instrument reacted to different kinds of metal by variations in its oscillation. They believed that the energy within metallic substances had its effect on human beings, an effect which the German somnambulists fervently believed that they were able to perceive. This doctrine of the action of metals they termed "siderism".

In 1822 Dr. Gustav W. Gross (d. 1847) the prominent homeopath and pupil of Samuel Hahnemann, published a report (54) on some systematically conducted experiments. He was critical enough to realize he was capable of self-deception and it was this distrust of his own observation that gave some scientific value to the results of his experiments.

In his report he stated that his aim was to obtain the same results as those cited by Dr. A. J. Greve,² a little known research worker of the time who had published scarcely anything. The purpose of these tests was to produce, by the exercise of will-power alone, every conceivable oscillation of the pendulum, as well as immobility. Gross, however, went further than Greve, since he wished to

¹ Cf. (28, p. 295) on this incident.

² Dr. Greve was a practising physician at Gütersloh and the report to which Gross refers was published in the Archiv für den thierischen Magnetismus, 1820, VI, St. 2, pp. 155-163.

discover whether possibly the theory that the results were due to selfdeception, which had been put forward by one of Greve's friends,

could be recognized as essentially correct.

In order to avoid any possible movement of the hand, Gross fixed the thumb and forefinger of his right hand, between which he held the thread, in an immovable position. This he accomplished by resting them on the edge of some rigid body, such as the edge of the table, and thus the most powerful exercise of his will-power lost any influence it might have had on the pendulum. The arrangement then was similar to that of Dr. Greve, who had fastened the thread to a piece of wood or wire. Similar results occurred if Gross kept his hand perfectly still by resting it on some fixed object, such as a piece of iron, or laid it between a piece of glass and the edge of the table, thus insulating it and at the same time meeting the objection of some friends that possibly the magnetic force of his hand could be, as it were, absorbed by the wood of the table. The results remained the same, however, as often as the test was repeated, the pendulum maintaining its action over the strongest sideric substances.

From this it was clear that in fact the whole motion originated in the hand. The will was active only in so far as it resulted in a movement of the hand. It was a striking fact, Gross thought, that without the knowledge or even suspicion of the operator, the exercise of will-power caused the muscles of the fingers to make movements that were scarcely visible but were sufficient to activate the pendulum.

With this result the doctrine of siderism was called in question and the power of self-deception convincingly demonstrated. The theorists, however, did not allow themselves to be influenced by the results. They carried on with their investigations both with metals and the *baquet*, the unproductive nature of which they could and would not comprehend.¹

In 1813-1815 certain reports (55, 56)² by Baron Friedrich C. Strombeck (1771-1848) caused much excitement. The companion

of the Baroness, who was also governess in the household, a young

¹ Cf. D. G. Kieser System des Tellurismus, etc., I, p. 167, where he says that it is remarkable that the oscillation of the pendulum is only to be observed when the hand of a living human being is touching the thread, a point also noted by Wirth,

(28, p. 147).

The first work was translated into French and published in Paris in 1814 under the title of Histoire de la guérison d'une jeune personne, par le magnetisme animal. An account of Strombeck and his work will be found in Frank Podmore's Mesmerism and Christian Science reissued in 1963 by University Books, New Hyde Park, New York, under the title of From Mesmer to Christian Science (57, pp. 208 ff.).

lady 20 years old, well educated and not without culture, began one day to develop spontaneously every sign of somnambulism without ever having been magnetized. Julie, before she had come to Strombeck, had on one occasion suffered from severe convulsions, which had lasted only a few days, but she seemed, however, to be perfectly healthy. In Celle, whither she accompanied the Strombecks, the convulsions suddenly appeared again and at the same time the somnambulistic conditions.

This led to the discovery of idiosomnambulism, that is to say the state of somnambulism appearing without external agency, which proved annoying to those who clung to the fluidic theory. Strombeck invited the prominent physicians in the locality to investigate the phenomena, while he himself wrote a diary about his observations. It is a detailed clinical history, with the usual examples of medicaments and medical treatments as prescribed by the somnambules of the period.

Questions were put to the patient concerning both the nature of somnambulism and the Beyond. Experiments were hardly attempted: subjective conviction was quite sufficient for the honest Baron, who believed that his Julie possessed unusual faculties. The sensation which the publication of Strombeck's book aroused served only to contribute to the growing weakness of fluidic theories.

Another magnetizer at this period was Dr. Franz A. Nick (1780-1832), a well-known medical consultant and at one time physician to Prince Ferdinand of Württemberg, who was a practising physician in Stuttgart. His somnambule, C. Krämerin, had been subject to convulsions since she was 20. At 35 she allowed herself to be magnetized by Dr. Nick for relief of a bad ulcer in the neck. Since, for the most part, she conducted edifying discourses during the magnetic twilight states, Nick considered her trustworthy inspite of her dubious reputation and believed that magnetism might have purified her. The lack of reliability of Nick was reflected in the superficiality of his experiments. His published anecdotal material alone deserves some consideration. He reported that C. Krämerin expressed satisfaction after some magnetic sessions. She said she saw him, not with her eyes, but with her belly. His whole body appeared incandescent, while his eyes seemed especially radiant. He bandaged her twitching eyes with a handkerchief, then put one object after another into his hand, and every time she quickly told him what it was, saying that he had a book, a pen, etc. To the often repeated question as to whether or not she could

read the contents of a book, or sealed letter laid on her belly, she always gave a quick and, as Nick noted, a peevish reply in the negative. For this reason Nick gave up all further experiments (which he later had cause to regret) and considered that her

inability to read in this way was proved (45, p. 13).

These enquiries were so casually conducted and described that it would serve no useful purpose to examine them further. Somewhat more interesting was a report that, on a certain occasion when Nick intended to go away, she was seized by a violent fit of trembling and, in the magnetic sleep, replied to his questions as to the reason for this. She said that he must not go home down a certain street, since a tile threatened to fall on him which, she asserted, he would not be able to avoid on account of the narrowness of the This story did not give Nick sufficient grounds to believe in such an example of prevision, but as so many similar warnings had been given he thought it reasonable to avoid the possibility of the falling tile by choosing the next street. Scarcely had he reached the end of the new road when several of the people who were standing about, who had heard the prediction, assured him that at the very moment when he was making his way along it a tile had fallen off a roof in the other street (op. cit., p. 35). This report would be impressive if so many questions had not been left unanswered. Was the weather calm and without wind? In what condition was the roof from which the tile fell? Had the house attics, or was the roof only accessible by using a ladder? Did Nick go to see the tile with his own eyes? He does not give the names of the eye-witnesses who saw the tile fall and it is not out of the question that the eve-witnesses themselves were playing a trick on him.

Again, in another report, no fewer questions remain to be answered. In this case Nick stated that Princess N., who was stopping in the town, expressed the wish, through her physician, to see his somnambule in the house of the Court Physician, Dr. von Klein. Nick went very willingly the same evening to Krämerin and asked her in the magnetic condition if she could see where she was going on the following day. She replied that it was to the Court Physician, Dr. von Klein. To a second question, as to whether she would make the journey willingly and without being annoyed about it, she replied that she would follow him anywhere he wished. Asked about the persons who wanted to see her there, she replied that it was a lady of high rank who lived at such and such a number

¹ It seems possible that this was the well-known Karl Christian von Klein (1772-1825).

in the "Römischer Kaiser". Asked if she saw anything else in relation to the lady, she replied that the lady had had her fortune told that day and had given two thalers as a tip. Nick hurried off to see Klein and told him what had been said. Together with the princess, Klein went to a room next to the one where Nick had gone in order to tell the princess about the phenomenon and to let her know that Krämerin had seen a lady of high rank asking for her fortune to be told. The disclosure of this secret caused the princess great embarrassment, which increased at the further information given by Klein that for the reading she had given a present of two The lady, deeply affected by the incident, confirmed the statement of the somnambule and merely explained that the present was one ducat, but which was equal in amount to that mentioned. However, it is well known how quickly the news of a visit of a distinguished personage spreads and how soon every move becomes widely known. Why, then, should all this not have been quickly known also to Krämerin?

The somnambule excited the greatest sensation when she prophesied the death of the king of Württemberg,1 but Nick's report of this incident is poor. That by C. A. A. von Eschenmayer, a Professor of Philosophy as well as a physician, is more precise. His report on how Krämerin's prediction took place is as follows. The event occurred on 17 April 1816, in the presence of Dr. von Klein, Dr. Nick and Professor Lebret.

"She: His Majesty is going to die this year in the month of October. He: Is it the beginning, the middle or the end of October? She: The end of October. He: Can you be more certain about the day; is it about the 26th? She: No. He: The 28th October, perhaps? She: It is a question of a stroke and coronary

thrombosis (Brustschlag) " (58, p. 46).

Krämerin's prediction did not take place spontaneously, but as a confirmation of an earlier prediction, dealt with by Dr. von Klein in connection with a somnambule, Mlle W. About 12 July 1812, Mlle W., when in a magnetic condition, stated in the presence of Klein and a small number of witnesses that, "His Majesty is going to die a natural death2 in the year 1816, between 18 and 20 April" (op. cit., pp. 42-43). In a later convulsion, Mlle W. is alleged to have corrected her prediction and gave October 1816 as the time specified. There was nothing clearly stated in writing. Although this was actually kept as secret as possible, information

Friedrich I, 1754—30 October 1816.
 The King died of paralysis of the respiratory apparatus.

about it leaked out. The highest officials laid bets on the correctness of the day specified for the death of His Majesty. When the king was still alive, on 17 April 1816, Eschenmayer and Klein resolved to ask Nick's somnambule. They believed that the same predictions pronounced by two somnambules must provide proof for the existence of the human faculty of clairvoyant prevision. Through his leading questions Eschenmayer brought Krämerin to the point of confirming the prediction of Mlle W. The king actually died at the end of October, although somewhat after the date predicted. Whether any news of this prediction had come to the ears of the king is unknown to us. If he had known anything of it, then the anxious expectation of death in the mind of the sick old man might have contributed to his decease on the correct day.

Caroline Ramer, aged 22 years, was a poor seamstress living at Cassel who suffered from unbearable headaches. In her despair she turned to Dr. Johann C. Valentin, who was a successful magnetizer. Although the Elector of Hesse-Cassel had permitted physicians to exercise this new method of healing, Valentin earned the bitterest enmity for his humanitarian action. Suspected of fraud, punished both by imprisonment and heavy fines, he bitterly complained that these various outrages were undermining his own health. One gains the impression that Caroline must have possessed a genuine clairvoyant gift and Valentin published a voluminous mass of anecdotal material which he gathered together in his medical diary. Some examples which we shall quote here contain assertions proved to be partly correct. For instance, on 14 December the somnambule stated that an old man of 72 had fallen from a barn in Breitenbach bei Hof, four hours from Cassel (the patient had never been there) and had suffered three deep cuts in his head. He had had to go up there to fetch some hav for the goat. The patient showed her distress at this. Valentin wrote out a declaration and sent it to the minister in Hof who, after making enquiries, told him verbally a few days later that the incident was perfectly correctly described. had happened on that very day, but that the old man had received not three, but only one cut from his fall (17, p. 65). Now a head injury is a fact easily verified, and one would like to know whether the minister at Hof had seen the relatively fresh wounds with his own eyes and whether he was able to ascertain the origin of the wound on the head without too many leading questions.

It was customary to put questions to Caroline Ramer, as is clear from an account of how the Countess Imperial von H. asked

her for information about Count von H.'s family in Magdeburg. The somnambule replied that the Count was very well but she would not express an opinion about the health of his wife. On being asked why, she replied that it would disturb the Countess Imperial. They besought the somnambule to speak out without restraint and she then stated that the Countess von H. in Magdeburg lay sick of a fever and that her whole body was covered with red spots. She then asked Valentin the name of this fever and whether it was scarlet fever, and the Countess Imperial now told Valentin that she had just received a letter stating that Countess von H. was ill with nettle-rash (op. cit., pp. 70-71).

On another occasion, when Dr. Schuchard and Mr. Wagner were present, the somnambule was asked what was the matter with Senator C. and she replied that he had just been very ill and was still suffering from lameness which arose from swollen blood-vessels. As a matter of fact the person in question had recovered from an apoplectic stroke, as a result of which a partial paralysis had remained. Caroline was then asked what was the matter with Mrs. Huth and she replied that she had a bad limp. As Valentin was not acquainted with the details of the trouble, he exclaimed: "Well, that is of no importance", to which the somnambule asked whether it was not enough if one could die of it. She must be brought to Göttingen to see Langenbeck. It was pointed out to the somnambule that treatment could be carried out on the spot, to which she replied that Langenbeck might perhaps heal her without an operation. This patient was suffering from a tuberculous enlargement in the leg (op. cit., pp. 71-72).

Again, Mr. von Zieten enquired how his brother was in Stuttgart. The somnambule said that he was well and was at that moment eating at a table. Valentin told her that it was too early for a meal (it was half-past twelve) but she persisted in her statement, on which Mr. von Zieten said that his brother was generally accustomed to have a meal about this time. Once more she was asked if there was anything the matter with Captain von Zieten, to which she replied that in fact he had had apoplexy a short time before, which she had not immediately seen since he was resting both arms on the table and he had to eat with his left hand since his right hand was paralysed. "This is a great pity," she added, "because he is a fine man." Mr. von Zieten confirmed this statement (op. cit., p. 77).

On 27 January Miss R. enquired how her sick brother Arminius was, to which the somnambule replied that he had a very bad arm,

covered with nodules and ulcers, but a course of baths and magnetism would again restore him to health. As a matter of fact, the boy was actually suffering from an acute attack of scrophulous ulcers (op. cit., p. 82).

On account of the large number of examples proved to be true, even if the descriptions of the diseases were in unprofessional terms, coincidence on a far-reaching scale seems to be excluded. The reports contain, in spite of their brevity, the essential verbatim questions asked of the somnambule. It is true that we do not know if these questions were immediately noted word for word during the investigation or if Valentin at times drew up the diary at the close of an enquiry, in which case supplementary notes might serve as a basis for unconscious embellishments. However, even if the objectivity of the report does not meet the demands of modern parapsychology, there is something of the greatest utility in these reports which is relevant to the present enquiry.

Valentin had to produce a series of such investigations before a commission of enquiry which was hostile to him. In this enquiry, of which the result was not made known to him, it must be assumed that his opponents tried to investigate minutely the agreements between the statements of the somnambule and the events to which they referred. The commission acquitted both Dr. Valentin and

Caroline Ramer of any suggestion of fraud.

i. The Case of Maria Rübel

Adolph Köttgen, an honourable and trustworthy man, was by trade a silk manufacturer. One day he read in the newspaper that the police in Langenberg had picked up an unknown girl in the street who had apparently had an epileptic seizure. The girl was now under medical treatment and care: she was in a coma and the urban corporation had to call in the police for help in discovering her name and origin. Köttgen took charge of the girl, Anna Maria Rübel, who was the daughter of a day labourer, and proceeded to magnetize her, whereupon she soon developed what were apparently clairvoyant faculties. The case provided a sensation in Langenberg and curiosity seekers filled the sick room almost every day. Köttgen regarded himself as a benefactor, since he had taken responsibility for her care and livelihood, and consequently he considered himself justified in exhibiting her and in carrying out with her an interminable series of investigations. He gave an account (59) of his public experiments which had been held in the presence of some

36 persons. During the magnetic condition Maria was for the most part vivacious and talkative. As soon as she awoke she again became "the dull, timid and silent Marie" who, as if ashamed, slipped out of the room as soon as possible. Köttgen believed that clairvoyant effects were a sign of purity of soul and so when Maria Rübel made a mistake during her clairvoyant performances he reproached her sharply in a tone of moral indignation. The poor girl, who was both ill and incapable of work, naturally took every means to keep her benefactor in a good temper. When after six months both her morbid symptoms and apparently her clairvoyant gifts faded away, Maria did not know what to do to help keep up appearances except to try both stupid and clumsy deceptions. The fraud could not remain hidden, even from the very credulous With righteous wrath he pressed Maria to confess all that she had done to deceive him, and the contrite Maria confessed to a whole series of laughable deceptive stratagems. But there remained countless experiments in which she did not admit of any fraud and, indeed, had they been fraudulent she would have needed a high degree of intelligence, skill and technical assistance. The clumsiness of the deceptions that had been discovered and to which she had confessed speaks for the genuineness of the earlier and successful experiments.

In the following report we shall confine ourselves to a selection

of the most important among a great number of tests.

On 7 June 1818, two letters were put to Maria Rübel, the tests concerning which Köttgen describes as follows:

"I. Yesterday evening I received a letter from Mr. Valentin Heilmann, resident in Elberfeld, in which he sent an enclosure from his brother, the minister in Krefeld, who is also a friend of mine. This enclosure consisted of a thick paper envelope, which had been carefully sealed and in which something of a printed nature was enclosed in a second envelope. My task was to arrange a test to see if Maria Rübel could read what was inside.

2. This morning I put into a thin piece of vellum paper, which I had cut out, breathed on and rubbed in my hands for several minutes, the word 'Beilage' [i.e. Supplement] which had been cut out of the supplement of the No. 40 issue of the newspaper, Hermann. Inside the paper was stuck a sample of green velvet and a small skein of yellow sewing silk. This was sealed and then I gave it, as well as the letter received from Krefeld, to a lady who was still a little sceptical and to whose house I sent Maria " (59, pp. 80-81).

¹ Referring to Hermann, Essen, 1812-.

Maria had at first some difficulties with both these tasks, which Köttgen describes as follows:

"A watch was put in front of her. On the dial was the name of the watchmaker in small Roman type. I noticed that she spelt out the letters softly to herself and I thought that she was studying that name, so I objected, saying to her: 'Maria, you are worrying yourself in vain; you don't know the Roman letters!' She replied: 'I am reading the letter and there in front of it are two letters in German type, namely a B and an e.' This quite unexpected remark impressed me and I urged her to go on. After she had softly repeated the letters to herself several times and had grasped the meaning of the word, she said aloud that 'Beilage' was in the letter. I confirmed this and then invited her to tell me something more about what might be inside. After a short time she replied: 'Oh! there is nothing to be read so I won't stop and we will go on the other letter.' With clearly visible effort, after a fit of convulsive coughing, she said, 'Today it won't come off; the paper is extremely thick and there are two papers concerned and the writing is small " (op. cit., p. 82).

On 8 June the test was continued:

"She now remained deeply withdrawn. At times, annoyed by fits of coughing, she could scarcely be persuaded to go into another room. She reeled about as if in a drunken stupor, knocked and hurt herself and then sank exhausted into an armchair, moved her lips now and then and after about half an hour said that in the letter from Krefeld there were the words 'Der Fragen' at the head of the epistle and then followed 'Ach—bald'. She could not see more that day: the paper was quite impenetrable."

Since this reading was not amusing and for the most part unimportant, Köttgen suggested to her that she should undertake other tests for perception. With regard to the above case, Köttgen states that on 17 June he received the following information from the brother of his friend Heilmann, which he proceeded to print word for word. Heilmann, he states, wrote:

"It has surprised me that Maria has discovered in the letter the words 'der Fragen—ach—bald', for *this* is what is actually on the little scrap of paper: 'Die Frauen—ach—bald' and indeed that is precisely the beginning of the letter" (op. cit., pp. 83-84).

Köttgen submitted to Maria some reading tests prepared by himself as is shown from the following entries in the diary.

"... Then she read in a little billet inside a vellum paper envelope which, through Mrs. Klein, I had put before her two hours previously (and which had been kept under observation by Mrs. Klein) one word out of three which had been stuck on to the paper. This was the word 'Bibel' and it was quite correct, but she spelt the word 'Bergischen' as 'Vergissen',

confusing the B printed with a capital and changing it to a capital V, laying the stress on the syllable 'gisch' or, as she pronounced it, 'giss'.

"14 June. Today I laid before her two reading tests similarly prepared by myself in order to see if the position of the words which had been stuck on the paper inside would hinder her from reading if the words were

placed at different angles, or even upside down.

"... Herr Bürgermeister Klein had the sheets of the report... She first of all spelt out the word 'Frau' which had been stuck inside and pronounced it perfectly. Then came 'Blätter' and this, she said, was turned in the opposite direction to the other. Then came the expression 'hohen Glaubens', cut out from the blue wrapper of a pamphlet. She said, 'This is blue paper', but of the actual words she only pronounced the following letters: in front of the last word is a capital G; behind this a small s and also between them a small a and a small u. On that day she could not get anything further on account of the strain involved.

"In a further test the following words had been enclosed in a folded piece of linen which had been sewn up. These were 'Herr', 'Annalen', 'Freudigkeit' the last being printed on blue paper. Afterwards she read the first and spelt out the second in a queer way, as she did not understand what it meant and as the two letters n made the separation of the syllables difficult for her. She soon said that the third word was printed on blue paper, spelt it out and then read it correctly " (op. cit., pp. 88-92).

In another successful test Köttgen unfortunately fails to tell us what the correctly read words were. He states that in the morning, towards half past ten, the girl was sent to Mr. C. Püls, where a word in a new, folded and completely opaque piece of sewn-up linen prepared by Mr. Cordes was laid on the pit of her belly. The girl had not left home until the sitting and remained under careful supervision.

She passed immediately into the magnetic state and then, having been very shy and quiet, she now became lively and talkative. Her eyes were now bandaged in the usual way, that is to say they were first of all covered with damp compresses and then covered with a broad, folded handkerchief and finally the chinks at the sides of the nose were plugged with cotton-wool. There now followed slight attacks of faintness which, however, so far increased her capacity for vision that she clearly read the word which was contained in the folded piece of linen prepared by Mr. Cordes and laid on her belly and stated with great assurance that the word was "Elberfeld". Mr. Cordes and Mr. Püls affirmed that this was so and when they had taken the envelope from under her clothing and had opened it before all present, the truth of her statement was confirmed. This had a visibly cheering effect on Maria and encouraged her to make

further attempts. Several among those present now laid under the finger of her left hand some printed words on dampened paper of which she read at least five correctly.

On 6 July Köttgen stated that a performance of a similar kind took place.

"Maria came at about 9 o'clock to my house, and was put to sleep by me in the presence of several persons through a slight touch on the hand. Mr. G. Siebel, from Elberfeld, had yesterday given to Mr. Platzhof in the same town a piece of opaque paper, wrapped up and carefully sealed, in which some words quite unknown to him were contained. done in order to make a trial here to see if Maria could read them. This paper had yesterday been laid on the pit of her belly, after it had been sealed with two wafers supplied by Mr. Platzhof, but had remained unread on account of the other tests. Today the trial was repeated and a crowd of persons awaited the results. After she had given information correctly about some other matters, she explained that she wished to remain quiet in order to be undisturbed when dealing with the letter. She then became quite still and only at times moved her lips like a child who is spelling out a strange word. Finally, she said the word 'auch' and then 'uns' but corrected herself, saving that 'the first word is "uch"'. At the remark that there was no such word she replied that it was not the whole word and that there was still a letter there, but that she could not see properly, on account of a red stain which partly covered it. We now left her again quietly undisturbed and after a few moments she pronounced, as it were in triumph, the word 'Handlung', stating that that was the last word and that she was not yet able to pronounce the preceding word. Finally she pronounced slowly and syllable by syllable the words: 'Mu-si-ka-len-Hand-lung'. Although we did not know the words contained in the letter we were certain that the girl had read everything correctly and we were all of the opinion that although the first word was half correct and half read the whole phrase must be 'Kunst- und Musikalienhandlung'.

"With this supposition the letter was returned unopened on the evening of 7 July by Mr. Platzhof to Mr. Siebel, in the same company that had been present when it had been handed over. Concerning this incident the following testimony is to be found in the supplement of the 192nd issue of the Allgemeine Zeitung of Elberfeld. It reads: 'I put three printed words—"Buch-und Musikalienhandlung" into a billet of very strong writing paper, folded over four times as was usual and then sealed twice inside,

and once on the top with a wafer seal '."

Köttgen reported that, after everyone had examined and been convinced that the sealing was intact and the paper opaque, the billet was opened and it was found that the word was not 'Kunst- und Musikalienhandlung' but 'Buch-und Musikalienhandlung' and that it was true that the first letter had been somewhat obscured by the sealing wax with which the word in the envelope had been stuck down (59, pp. 110-112).

Mr. Siebel himself published a statement saying that the letter had been returned intact to him from Mr. Platzhof with the information as to what the somnambule in Langenberg had read: "Auch und Musikalien-Handlung" and stating that she had complained that the first word was covered with a red stain (the seal). He noticed that the letter B was of the type that persons who in every-day life do not read easily might take for an A, but he said it was not possible to see through the billet even if one held it up in front of the light. This statement was signed by G. Siebel at Elberfeld and dated 9 July 1818 (op. cit., p. 112).

Köttgen was certainly a conscientious and truthful reporter, but we are deprived of the results of what might have been one of the most interesting of his experiments through the summary nature of

his report.

Another entry in his diary reads:

"17 July. When I received the proposal from Professor Kieser that I should without delay put to the test the clairvoyance of Maria Rübel through fastening down the eyes with sticking-plaster I applied this test in the evening, towards 9 o'clock. I had told her of the importance of the experiments and had persuaded her in every way possible to resist any disinclination which she might have to carry them out. At the beginning, after shuddering with reluctance several times, she remained in complete darkness for about fifteen minutes and complained about the unpleasant smell of the plaster. When I was almost half despairing of success owing to the moral pressure I had brought to bear on her, then there suddenly developed her capacity for seeing in the darkness, which even with uncovered eyes was like a veil, a capacity so perfect that she recognized many objects and read quite correctly some words from the title of a book " (op. cit., pp. 122-123).

We should like to have known here what objects they were that Maria recognized, whether she could touch these objects and if she made any mistakes and if so how often. Were the circumstances such that she could easily have guessed the title of the book? We should have been informed whether this book was formerly known to Maria Rübel and where it was kept before the investigation. The lack of any systematic direction by those conducting the research spoilt many an experiment which might have taken an interesting course, as for example in the following case:

"Messrs. Graf, Köttgen, Conze, Nägele and Timphaus pressed home the point (and Rübel was quite willing to grant it) that a dresser at the hospital, a Mr. Löwen, should place over both her eyes and half her face a sticky plaster made of black silk taffeta thickly smeared with a lead emplastrum. This was examined and found to be completely opaque by Nägele and Timphaus. Under this were placed damp compresses over the eyes and on the top the bandage was once more tightly wound round the head " (op. cit., p. 146).

Afterwards, when all this had been done to close the eyes effectively, one might have expected some carefully designed and arranged experiments. Instead, however, Köttgen's report reads as follows:

"Maria Rübel, for example, distinguished a silver watch from a gold one, pointing at it with her finger and twice she gave the time at distances of at least six feet away from her, with her forehead parallel with the proffered watches, while she said that the hour hand stood at 5 and the minute hand at 12, which assertions were absolutely correct" (op. cit., p. 146).

On 30 October 1818 the newspaper Hermann published the following report. Dr. Bährens in Velbert had prepared and sent to Köttgen a reading test with which Maria appeared to be more especially engaged. It consisted of a small piece of brownish cardboard on which Bährens had stuck a word. This was covered with a piece of new linen and sewn at the top so that the doubled silken threads ran together on the back side of the cardboard. In the middle these were fastened with Bährens' seal and the cardboard and the piece of linen were wrapped around with blue paper. They said that some hours before the magnetic sleep this reading test for Maria had been placed under the sole of her stockinged left foot. After some moments in which she was quietly withdrawn and in which she slightly moved her mouth, she said that she believed that the word under her foot meant "Geschichten" [i.e. histories]. Bährens denied this but after a fresh period of quiet she said that it was "Schiften" [witings, i.e. writings, but lacking the small r]. Mr. Bährens replied that this was correct; it was "Schriften" [i.e. writings]. He had not caught the missing letter r in the pronunciation (op. cit., pp. 143-144).

This report is less reliable than accounts of experiments in which none of those present knew the content of the reading test. We do not know if Bährens put any leading questions or if the contents were not divulged in some way or another. The secret can be well kept only in those cases in which a sealed test is either handed to the person in charge of the enquiry or, preferably, sent indirectly, as for example through the post. It is also regrettable that Maria was not asked to write down the contents of the tests. It is doubtful

whether the note-taker was always able to understand precisely what she said and in the few short words which she deciphered every letter was important. In addition, and closely connected with this conjecture, the possibility arises that the note-taker projected his own expectations of what he thought he was going to hear into what he actually did hear.

Many experiments might have extended with interruptions over several days. The following experiment was especially tedious and wearisome. A partial report of it is given by Köttgen in his diary:

"Ig October. Several days ago I received from Professor Benzenberg three letters with some individual words, in the preparation of which exhaustive precautions were taken. The first of these letters had been presented to Maria yesterday, but, with her other tasks to perform, she could then say nothing further about it than that it was horribly thick blue paper to see through. At the later trial she rested quietly asleep with her head supported on her hand. She then said: 'Take the paper away quickly from my chest: I see that the white outer paper has already been slightly damaged by my profuse sweat'... Silently she took off the stocking from her left foot, asked me to put the letter in her woollen slipper and then put her naked foot on the top of it. I then left her alone for several minutes. When I returned she said, "It is causing me great trouble, but I already know one word: in front there is "aus", and then, after three or four minutes, she pronounced in a contented voice as if she were certain, the words 'aus Dresden'.

"Since Professor Benzenberg's first letter had suffered externally from sweat I wanted to protect the second and third letters from it. Therefore, after I had blown through it, I laid the second letter under her left foot and not on her chest. However, I soon heard that she was having difficulty with it. To many entreaties she finally said that the first word was 'dieser' [i.e. this]. She then wanted to stop till tomorrow, without reading the letter presented. The letter remained lying under her bare foot which rested on a folded cloak, a corner of which covered her bare foot. A marked convulsive condition then set in and I did not give a thought to the fate of the letter. Afterwards I found the seal unbroken but a new crease had appeared, owing to which the length had been altered by about half an inch. Consequently, the cardboard inside the letter could not be folded back and on this account I let it remain in that form. . . .

"21 October. The second letter was now placed under her foot. She asked me to help her by stroking her leg from the thigh downwards and soon after she revoked the word given yesterday [sic] namely 'dieser' and said that the whole might be 'der Handlung'. However, she always made mistakes about single letters in the substantive, complaining that this was because of the crease, and so we withdrew the letter for the time being....

"The third packet, after I had strongly blown through it, was put

under her foot. She soon complained about its darkness and thought that there was something disturbing, perhaps made of steel, inside. I thought, however, that the suddenness with which it had been put under her foot was the aggravating cause. . . .

"... The third packet was again laid under her foot. She asked me to stroke her left leg as assiduously as possible and she soon gave the contents. Namely, the word 'Kaufmann'. She spelt it out definitely and clearly, so that I did not doubt the correctness of the solution and laid it aside....

"The letter presented yesterday was now put under her left foot and the leg soothed. After a couple of minutes she said that in front there was not an a, but there was an M before it. It was difficult to read, since she said there were three wrappings over it, not very big print and the same word on both sides. Then she began to spell out slowly the word and said 'Magisches Edelgestein'. The contents of the packet were opened by Mr. Püls and were found to be as she had stated....

"10 November. Today I received the information that the contents of the packets sent by Professor Benzenberg dating from 18 to 21 October had all been correctly read. In the second letter no complete word had been enclosed. Of 'Unterhaltung' in the second letter Benzenberg had cut off the first syllable 'Un'. It was for this reason, and because a crease had actually folded the word over, that the uncertainty had arisen. One of these letters had been opened during the meetings of the Congress at Aachen at which Alexander von Humboldt was present" (59, pp. 147-171: 62, I, p. 429).

A more detailed account of these letters would have been desirable and the statement that "exhaustive precautions had been taken in their preparation", although honestly meant, comes from an uncritical reporter. However, it must be accepted that one of the letters passed through the hands of critical observers at the Aachen Congress.

Maria Rübel carried out another experiment in that October which cannot be accepted without reserve. Köttgen reports:

"... Since ten o'clock Maria has had laid on her chest a reading test, sent in by a local watch-maker, Mr. Mindhoff. I then put it directly under the foot by which she sees. Her leg was assiduously stroked, but not for long, for she soon laughed in a friendly way and said, 'This is indeed an amusing thing!' and then said, 'In the packet is a red cardboard cover. In the centre is a flat, round little golden crown, almost like a little watch. Above it is stuck a peculiar little piece of paper as big as the round thing'. She denied that there was anything to be read inside. At my request she tried to make a drawing of what she had seen, but fell into the most alarming convulsion which we had yet experienced.... Mr. Mindhoff, whom I wanted to be called during the magnetic sleep, was not at home. But in the evening he received back the undamaged little packet with the accom-

panying statement and confirmed its complete accuracy. A bookbinder's fillet, a pretty roundish rosette, was printed in the middle of a piece of thick, red cardboard, a piece of folded white paper stuck on it and with a white sheet of paper laid over the entire red surface and finally the whole was fastened and sealed in a plain envelope in the form of a letter" (59, pp. 155-157).

It is not impossible that Maria Rübel had discovered in some way what the watch-maker, who was resident in the same town, had put into the letter.

In November there were no more experiments worth mentioning. Many tests might be extended over several days, with interruptions. Maria exerted herself in vain for days together to decipher the reading tests that were laid before her. Köttgen's pressure on her brought her to complete despair on the matter. Finally, she secretly slit the letters and fastened them together again with yellow paste. The clumsy fraud could not long remain concealed. The moral wrath of Köttgen was extreme. He demanded a confession from the unhappy girl: she reacted with a tongue cramp lasting for an hour, after which she confessed to more than the unsuspecting Köttgen could ever have dreamed of. Scarcely had she awakened from the magnetic sleep than she again denied

everything.

The following circumstances were connected with the deception to which Maria confessed in the magnetic condition. Three years before she had injured her hand chopping wood. The wound healed badly and apparently Maria treated it with the intention that the scar should remain open. However, the medical care, examination and treatment that were given for her injury benefited the girl. In Köttgen's house she secretly inserted a splinter of bone into the wound and asked for an operation. To the astonishment of her benefactor and the surgeon she accurately described the size and shape of the splinter, which they would find in the wound. Köttgen preserved this piece of bone as if it were a sacred relic. Maria was besieged on every side to help discover clairvoyantly stolen property and wills that had disappeared, or to bring errors home to opposing parties in legal disputes. The poor day-labourer's daughter enjoyed the attention lavished on her by the respectable citizens of the town. It is understandable that she could not resist the temptation to seek publicity. In order to keep up the interest of those about her she predicted, for example, that she would fall downstairs, which afterwards she did intentionally. admitted that she twice intentionally nicked her veins and that she had mischievously thrust two needles into her flesh.¹ When she had been convicted of fraud she tried to cause a sensation by the

report of a ghost appearing at night.

These stupid and clumsy attempts at deception involving a measure of self-torment for herself provide direct evidence of the paranormal as seen in the successful readings. Maria was too stupid to have been able to open undiscovered a sewn-up and sealed packet and to refasten it. For a fraud of this kind great skill and technical expertise were required.

Whenever Maria showed contrition and readiness to confess in the magnetic state, she insisted on the fact that, in the reports we have quoted and in many more, there had been no deception. In the experiments which either Köttgen or somebody else in Langenberg did not know what was in the seemingly closed and sealed packets, deception was scarcely possible. Theoretically it is, of course, possible that quite honest men who prepared the reading tests and who lived at a great distance might have indulged in a practical joke, but this appears improbable.

The temptation to reject completely all the experiments with Maria Rübel is certainly great. Such a rejection would, however, be rash, for the hysterical inclination towards fraud does not constitute any proof of actual deception in every case. Those experiments in which none of those present knew what was in the sealed wrappers

were to a great extent free from suspicion.

We can, however, reflect upon the fact that later in Czarist Russia similar experiments, although much more carefully designed, succeeded with a sensitive² and so it may be assumed with some degree of confidence, although perhaps with less certainty, that Maria Rübel did possess at times a clairvoyant faculty.

In spite of his anger and disillusionment, Köttgen continued to take trouble with Maria Rübel, and got her to work in his factory. Even when she had to be sentenced to a term of imprisonment for theft he did not abandon her but after her release from jail provided

¹ Cf. (28, p. 294) for a discussion of this incident in connection with conscious

and unconscious deception.

² Dr. Khovrin [Chowrin] reports (60) in detail some experiments in which letters were presented to a sensitive which had been fastened up securely by a postal expert. A test was also attempted with a piece of writing placed between two unexposed photographic films. One experiment was conducted by drawing a letter at random so that no one could have known what was inside the one chosen. This Russian sensitive also needed several hours to read the contents of the sealed packets. Like Maria she used to handle and press letters presented to her.

her with lodging at his brother's. There she again, apparently, developed clairvoyant faculties. Köttgen had now become more cautious. On his own initiative he devised different kinds of facial masks which were intended to prevent every kind of optical perception. He writes:

"I informed the somnambulist that she must agree to have her eyes made secure as otherwise the experiments would cease as we both would be suspected of fraud. That helped. What I wanted was a sufficiently large black leather patch cut out of a glove and smeared on the lower edge with a sticky substance to a finger's width. This was fastened over her face, down over her eyes to the tip of the nose and then secured by a bandage so that the whole could not be disturbed. That helped, but only for a time. . . . Then I designed the last procedure, which really would silence all criticism and to which Maria all the more willingly agreed

since it was less annoying to her.

"I took a piece of quite heavy, opaque, black silken material and spread over it three or four times a layer of the best joiners' glue (Paris gelatine) which served as a dressing for the silk. The whole of this stiff opaque plaster was then cut into suitable pieces and each piece was covered by a broad patch, previously dampened and made soft and so firmly fastened down that when dry it could not be removed except by tearing the skin. The bandage, on the other hand, had now to be taken away, because it would otherwise have exerted unbearable pressure on the plaster when dry. This method of preventing vision with the two large black patches over the eye seemed far more satisfactory than the earlier one of the bandage alone " (61, pp. 417-418).

These measures that Köttgen took leave nothing to be desired. It is all the more to be regretted that no convincing experimental technique occurred to him and he contented himself with completely unsystematic methods of reporting, as the next account shows.

"If women were among the visitors I usually kept them behind during the time that Maria was being put to sleep, since this was usually unpleasant or less interesting to them and then later I allowed them to come in softly and stand around the bed. It was then often quite convincing and entertaining if Maria's attention was at first apparently attracted by their pretty get-up and she began to describe accurately the ladies as they came in, whom she had not seen in her waking state. She usually began by describing shining objects such as rings or chains, followed by pretty capes, ribbons, embroidered bags, hoods and hats, giving correct accounts of the clothes, their designs and colours, in short a precise account of the whole costume portrayed in a childlike, gay manner, especially when it was stylish and attractive. Moreover, a remarkable thing was often noticed, namely that she gave facts that she could not have done in the waking state,

as, on account of her position and posture some objects were hidden by

others and by persons present.

"But the seeing of the time on a watch was always one of the most remarkable proofs of her peculiar powers of perception. The position of her head was always in a horizontal line with the position of the watch that was presented, so that a sharp-sighted person could hardly have ascertained with certainty the position of the hands. In the last year she always covered the watch with her entire hand and held it in the same position until she had given the correct statement on the position of the hands. She usually did this for each hand independently, since for the most part the observers, in order to be certain that no guessing of the time could be presumed, intentionally altered their watches before they presented them.

"... In all this it remained certain that nevertheless the somnambule recognized more quickly and surely objects that were well lighted from without. If, for example, things were held in the hand under a hand-kerchief, or in something covering the foot, then for the most part she still recognized them, but the process was often longer and at times somewhat

uncertain" (op. cit., pp. 418-421).

After the great scandal of 1818 none of the leading savants would have anything more to do with Maria Rübel who remained in the hands of the honest silk-manufacturer with his amateurish experiments till she died in 1836. When we consider, however, the lack of method in most of the magnetic experiments by contemporary professors, it seems to us that Maria Rübel was nevertheless in good hands when working with Adolph Köttgen.¹

ii The Cases of Marie Koch, M. Schurr and Others.

Marie Wilhelmine Koch was the 12-year-old daughter of the deceased Court painter Koch. She was magnetized by Dr. Franz Dürr to relieve severe convulsions and he drew up a fairly detailed diary (63) from which the following extracts are taken.

Dürr stated that a small sealed packet had been received from Mr. M. and laid before her, the contents of which were entirely unknown to him. She was not able to read this because, so she said, the paper was too thick, but she thought that she would probably be able to read it later. As proof of her power of reading

¹ Further details on the case of Maria Rübel were published in some of the contemporary newspapers in 1818. For example, J. Platzhof wrote in the 12 July extra issue of the *Allgemeine Zeitung* of Elberfeld and F. Brand in the *Rhein. Westphal. Anzeiger* of 23 August, with which may be compared a later report in the same newspaper by Professor Kuithan.

with the fingers, one day at an arranged time she read the contents of the little sealed packet that had been placed before her, saying, "Trust in God. He will help thee." She then wrote what she had said on the outside of the packet, appending her name, and asked that the letter should be sent immediately to Mr. M. and his reply as to the correctness of her reading should be awaited.

Dr. Dürr was delighted with the letter from Mr. M., which read as follows:

"Dear Doctor,

I thank you most sincerely for your letter, which I received yesterday evening. In the presence of Professor Schaffroth and Miss Leiner, who happened to be with me, my dear wife broke the intact seal of the little packet in which I had, without anyone else's knowledge, written the words, 'Trust in God. He will help thee!' These words the good child sent back to comfort me as a fellow sufferer and in the innocence of her heart writing her name underneath them on the outer white envelope. Baden, 30 October, 1819."

In this case a genuine paranormal phenomenon might have occurred, since none of those present could have known anything of the contents of the packet. An ordinary seal, however, is no guarantee of security against fraud in the opening of a letter. On the one hand one might accuse either the doctor or the 12-year-old child, or both, of fraud: on the other hand, proof of the paranormality of the experiment fails on account of the inadequate security measures taken.

Dürr conducted other experiments, mainly with playing-cards, but nothing can be proved from them except the credulity of the experimenter.¹

Mattheus Schurr is described as a lively boy of 13 years, who, after the death of his father, suffered from different forms of fainting fits. His physician allowed him to be treated by a magnetizer, who

¹ Recently there have again been reports of finger-tip vision in both European and American newspapers (cf. 64). Here again the most modern experiments are lacking in objectivity, since the experimenters expect recognition of their own trustworthiness. In a controversial subject like parapsychology, in which today even the existence of the phenomena is questioned, the investigator must reckon on doubts concerning his personal integrity and mental condition, as befell for instance, the well-known Leipzig professor, Zöllner. Such elementary methods of criticism compel the investigator to select an arrangement of the experiments which render such attacks impossible.

Unfortunately, since Khovrin's investigations, no other enquiries apparently have been made in which no one, neither the somnambule nor the investigator, nor those present, could know the contents of a fraud-proof sealed billet.

occasionally also carried out some experiments. For example, the following experiment was attempted with the child, when in a magnetic condition. The physician, who had privately decided to give him quinine, wrote on a little piece of paper, in another room, the word China in Roman script. The physician then went with this little piece of paper back into the sick-room which had been left unlighted, put the billet into the hand of the magnetizer, Mr. B., who laid it on the patient's belly, doing everything so carefully that neither the patient nor Mr. B. could have seen the billet, even if the room had been lighted. When Mr. B. at this juncture asked the patient what was on the paper which had been prepared, he replied, "Oh, mother, it is so dark I see nothing". After repeated requests by Mr. B. he again complained about the darkness, but after a pause he said, "Indeed I see it, but it is so dark that I cannot read it clearly. There is only one word: the first letter is a capital O and the last letter is an a." To this statement Mr. B. said, "Is that certain?" After a moment the patient said, "No, the first is a C, but the stroke goes so far down that it looks like an O (this was actually the case). But the last is a small a." With great exertion the boy finally spelt out letter by letter, still complaining of the darkness, the word "China" and immediately afterwards said, "That makes me feel better" (65, pp. 204-205).
We cannot be convinced of the "care" with which the physician

We cannot be convinced of the "care" with which the physician gave the billet secretly to the magnetizer. Darkening the room is also an insufficient protection against deception, since from a 13-year-old boy a better dark adaptation would be expected than from the adults present. Apparently, this was merely a case in which a curious physician took the opportunity for an experiment. As concerns later tests carried out by this investigator, they deserve

neither notice nor the term "experiments".

Heinrich Werner was a Doctor of Philosophy and pastor at Bickelsberg, a village some thirteen kilometres east of Balingen in Württemberg. He did not conduct experiments, for his concern was to prove the existence of guardian spirits. With this end in view he used to question his somnambule, R. O., a peasant girl of 18 years old, for hours on end concerning the Other World. It is, therefore, not to be wondered at that she produced every possible kind of spirit and especially her own guardian, Albert, with whom she carried on long conversations. It might therefore happen that apparently telepathic experiences were mixed with hallucinations. The following report seems to have had included such telepathic

hallucinatory experience. During her magnetic state the somnambule suddenly called out, "For God's sake; oh, Albert, help! Save me! My Emilie is falling down on to the street! Oh, hurry to the rescue!" After a short period of tension she said, "Thank God, help has already come! Thou, my true guide and friend, hast already given help before I knew and asked for it."

Asked what had frightened her, she replied that it was her little sister in U., and as her whole body was trembling violently, she was asked what was the matter. She replied that her sister was on the upper floor of the house when a piece of wood was being drawn up on a winch from the street. She wanted to seize the rope on which the load was suspended and the swaying might have dragged her out, since there was no window-sill, if her father had not pulled her back. There then followed a long pause, which lasted an hour,

during which she lay motionless as if exhausted.

Werner states that the remarkable story of how her sister Emilie's life was saved, as described in the magnetic state just recorded, was confirmed in detail and occurred under the following circumstances. In reply to their immediate enquiry, they received what was for them extremely surprising news. On the afternoon of the 10th, some time after four o'clock, men had been busy on the upper floor of the house drawing up peat from the street by means of a hoist. Little Emilie may also have wished to help and carelessly seized with one hand the rope on which the burden hung, not realizing that the opening at which they were standing had no sill. As the rope with its burden was in continual motion and naturally was beyond the child's strength to control, the swaying of the load of peat might have pulled her out. She had already lost her balance and uttered a cry. At this moment her father, who had come up behind her, seized her by her dress and pulled her back (26, pp. 89-91).

There seems much to be said for the paranormal nature of this occurrence, as, for example, the fact that the agonizing calls for help by the somnambule occurred spontaneously. The frightening experience of the little girl in the warehouse and the father hastening to her help could clearly be verified. Yet neither the subsequent verification of the event concerned, nor the report of the case, meet the demands of present-day parapsychology. One cannot exclude the fact that suggestive questions by Werner might have given rise to the apparent agreement between the vision and the related event.

In the case of another possibly paranormal result by the somnambule R. O. her account of the event concerned was confirmed on the spot. In her magnetic sleep she said, "I actually saw myself, my whole form. I was sitting in a chaise which was travelling along. It was very remarkable." After a short time she continued. "Ah. it is the chaise which you want to buy. It is lacquered in green." To this Werner asked her how she could know, since he had not yet seen it himself, as it was at a place at least fifteen hours' journey "I did see it, nevertheless," she replied, "and it was certainly the chaise and I am not making a mistake. I shall travel in the chaise which I can see. Tomorrow afternoon you will have further news about it." This was actually the case. Unexpectedly, instead of a written communication, which Werner had not expected before eight days' time, a message was brought him on the following day at half past one in the afternoon. This gave him information about the chaise that R. had described, but which he had not seen. and confirmed that she was accurate to a single detail, but added that the chaise was very good and not too expensive (op. cit., pp. 123-124).

In this report we lack the details that might make credible the assumption of a genuine telepathic effect. Werner assures us that the girl had described to him accurately and in detail the chaise that neither of them had ever seen. But in his report he omits the details of this description by the girl. Only the colour green was named, and the colour of a chaise might easily be guessed. In studying the literature one often has the impression that the very verbose reports of paranormal phenomena are suddenly cut short at the point when significant details should come up for discussion.

The following report might be thought of rather as a mystery story than as an account of a paranormal phenomenon. Nevertheless, we give it at length since it is characteristic of countless ghost stories current at that time. After Werner had put his somnambule to sleep she began to speak as usual of her guardian spirit, Albert, as well as of a black spectre, which had evil designs against Werner. She said, "Today between eleven o'clock and noon you were making a visit to Stuttgart, according to Albert. At this time the black spectre came into the front part of the room which you had left and then went out into the street. He wanted to await your return home. The black spectre was in a violent temper and in his frustrated fury pushed down two flower-pots from the centre window on to the ground." To this statement by R., Werner remarked that it surprised him greatly, since the striking facts described in her ghost story had happened exactly as she herself had said (op. cit., p. 190).

Werner reports that he did indeed return from a visit towards twelve o'clock. When he entered the house in which he had a lodging he heard something fall on the ground. A reliable lady who was present heard this also. Both hastened through the dwelling, which was arranged as a suite of apartments, to the room from which the noise came. There they found great confusion. In the middle of the room underneath the window-sill, Werner states, they found to their great surprise both the flower-pots, which for several weeks had been standing undisturbed on the sill of the middle window, broken into many pieces, the earth scattered as far as the door opposite the window and the plants concerned, a hydrangea and a cactus, pushed over as far as the stove on the opposite side of the room. Their surprise was increased by noticing that the right-hand curtain of the middle window which, like the others, should have hung to the floor, was now spread over a canary cage, which hung from the ceiling next to the window, and was so twisted that the cage seemed enveloped in the curtain. The whole appearance was all the more striking since the room was closed and no living being, not even a cat, was inside. The window, indeed, was open, but the Venetian blinds were closely fastened and outside, in an almost unendurable heat, there was not a breath of wind. disorder, however, was so great that it would have been impossible for a severe storm, or even a cat, to have caused it (op. cit., pp. 191-192). The room lay at the end of the suite of apartments, and in order to reach it, inside the house, Werner and his companion had to pass through the whole house. A second door, locked from the outside, led direct from the staircase into this room.

In spite of its prolixity, this account leaves many questions open. The reporter should at least have given information about the number of keys of the ghost room, where they were kept, and if the door of the room had a complicated lock or was easy to open with another key. It would be important also to know on what floor the room was and if the Venetian blinds could not have been opened from the outside. Nevertheless, if we wish to assert that this was the case of a paranormal event, it must have been of a telepathic hallucinatory kind. In this case the patient might have had a telepathic picture of the evil-doer (probably some mischievous youngster) and interpreted her hallucination as a horrible spectre. More suggestive, however, is the natural explanation that the somnambule had initiated the evil-doer himself into the mystification. The banality of the disturbance is characteristic of these poltergeist stories. In the whole comprehensive ghost literature of the nineteenth

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century, one seeks in vain for significance and symbolism. And, indeed, the manifestations of the modern ghost are still just as trivial.

In 1842 there appeared in Kerner's Magikon (66) an unsigned report which appears to have been submitted by a German contributor. This describes a visit to the well-known Prudence Bernard in Chalon-sur-Saone. The author states that a young lady called Prudence, under medical treatment by Dr. Laurent, was exhibiting remarkable magnetic qualities such as vision through opaque objects and walking, falling and again standing up according to the will of those who had magnetized her. He went to Chalon-sur-Saône and visited Dr. Laurent with his somnambule. a young lady of 17, whose appearance was quite ordinary but who showed a simplicity and cheerfulness that were very prepossessing. Although after her public appearances on the preceding days she was fatigued and wanted complete quiet, she at last agreed to repeat in his presence the experiment that interested him the most, namely vision through opaque objects. Dr. Laurent then asked him to cover the girl's eyes, which he did, so that he was satisfied beyond any doubt that not even a ray of light could penetrate the covering. Laurent gave his visitor a free choice from several masks, handkerchiefs and pieces of material, or a bandage which the day before had been made by a sceptical chemist with the help of a still more sceptical physician. The visitor first of all tested on himself one of the masks which had merely an opening for the mouth and covered the face and through which he, when wearing it, could not with the greatest effort detect the slightest glimmer of light. Before putting on the mask, Laurent proposed that the evelids of the somnambule should be covered by several layers of gummed taffeta. His visitor, however, preferred the simple mask, stipulating that the opacity might be increased by the addition of several handkerchiefs. When the mask was put on he tied a folded handkerchief over the eyes and forehead of the somnambule and began to play écarté with her.

Prudence was extremely fond of the game. As each card was dealt she held it to her forehead and immediately recognized it. Her opponent wanted to tie a further handkerchief over the first. This was willingly granted but her vision continued to operate.

¹ [The sittings at Chalon-sur-Saône were described by A. Perusson (Soirées magnétiques de M. Laurent à Chalon-sur-Saône, Chalon-sur-Saône, 1841) and a short account is given here to enable those interested to read the reaction of a German observer to Mlle Bernard's performance. Ed.]

Words were then written on a sheet of paper: she read them at once. A watch was held up: she was not able to give the time precisely but she accurately indicated the approximate position of the two hands. She also recognized the colour of the dress of a lady visitor who was present and she admired the fine embroidery on the handkerchief that the lady held in her hand. He noticed that she immediately recognized simple objects that were proffered, as, for example, an ace from a pack of cards, a word or a number, while she recognized after longer consideration such things as the ten of spades, a sentence or a numerical sum. The mask had stuck so firmly to the face through heat and perspiration that they

had some difficulty in removing it (66, pp. 392-393).

In considering this experiment we note that the observer concentrated his attention first and foremost on Prudence and not on the magnetizer. We need to be certain that during the experiment complete silence was maintained and that the magnetizer did not catch sight of the playing cards or written words that Prudence correctly recognized and that he had taken up a position sufficiently distant from her. To say the least, the reporter who had actually gone to Chalon-sur-Saône for the investigation might have brought with him a new pack of playing-cards. It was also imprudent to write down the words that were read in the presence of other persons. It is understandable that the observer was amazed and knew of no objections that could be advanced, but it is a pity that in this experiment, in many respects so carefully arranged, so many obvious precautions were neglected.

In order to give the best possible picture of the development from naïve beginnings to later refined techniques, we must now refer to some earlier experiments by Eberhart Gmelin. For example, he reports the following experiment in clairvoyance (67, II, p. 79).

Holding a pack of playing cards close to the abdominal region of his somnambule's body, he shuffled it, drew a card and pressed it face down with his finger on the pit of the belly, so that the somnambule, he himself and those standing around were all unable to see the card. He then asked what the card was and the somnambule replied that it was a picture card. After some time she first of all decided what kind of card it was, a queen, king or knave. Then she read the colour and finally the suit. The card was now looked at and it was found that every time her statement was correct. The result was just the same if, for the benefit of the sceptics, the eyes of the somnambule were bandaged. What is especially striking

in this report is the condescending reference to the sceptics, in deference to whom the eyes of the somnambule were bandaged. We see that in those days a precaution that later was an obvious requirement was then regarded as a concession.

In another report (67, II, p. 84) Gmelin stated that, having absented himself from his somnambule, he put a playing card into his silver snuff-box, closed it and then brought it into contact with

the patient, who then named the card correctly.

Such reports might be of value if the tests were described in detail, so that every possibility of deception might be recognized and excluded. It is precisely the summary nature of the report that makes it a characteristic example of the accounts commonly provided by writers of this earlier period.

According to the theory of the "Allsinn" (the Universal Sense), as propounded by the school of nature-philosophy, paranormal events were to be expected in all sensory spheres (see page 110). Consequently it had to be assumed that a somnambule could be not only clairvoyant but also clairaudient. Countless experiments were carried out to provide proof of a paranormal power of hearing, but scarcely one of these experiments would withstand critical consideration. Thus, Johann Ulrich Wirth (28, p. 180) relates the report¹ of a magnetizer who left the sick-room during treatment in order to listen to the music of a flute-player, who was in another room some distance away. The somnambule, who was a boy, immediately spoke with delight of the beautiful music that he heard and invited those standing round also to listen to it. they did not hear any music they thought that the whole thing was a dream. The magnetizer, however, came in and then the explanation of what had occurred was found. Some tests were arranged that showed that the somnambule heard the notes only so long as the magnetizer himself heard them. As soon as the latter retired to a distance from the flute-player and no longer heard the music, then the somnambule also heard nothing more.

It might have been rewarding to have carried out this experiment in a manner where all fraud was excluded. If such phenomena have nothing to do with paranormal hearing at a distance, then they might contribute to the further understanding of hypnotic rapport in its relation to telepathy.

J. A. C. Kerner reported the following experiment with his

^{1 (68,} pp. 117-118) quoting from Beutenmüller's report. Wirth (28, p. 223) comments on this incident.

somnambule Caroline St. (69, pp. 306-307). He put into her hand the end of a piece of wire, eighteen yards long, and passed the other end, without it touching anything, through the window two stories high above the courtyard where he got another person to hold the other end. This person then spoke in a low voice to the wire and the somnambule was able to hear the words, while Kerner and those with him at the bedside did not hear the slightest sound from the person speaking in the courtyard. Upstairs, the somnambule repeated every word aloud. If the wire came in contact with another conductor, as, for example, the stove, she no longer heard the person in the courtyard.

The simple arrangement of the experiment could at least lead to the assumption that this was a case of hyperaesthesia or extreme auditory sensitivity. It would, however, be necessary to know how the agreement between the words whispered in the courtyard and

those spoken aloud by the somnambule were tested.

Experiments with sensations of taste and smell were also favoured. The following report (70, pp. 22-28) by a Hungarian

physician may serve as an example of many of them.

A piece of linen moistened with a sweetened syrup was laid on the belly of the patient, whereupon he soon appeared to experience a pleasurable sweet taste in his mouth. He was asked what it was that he had lying on the pit of his belly and he replied that it was "sugared water". On being asked how he knew, he replied that he felt a warm, damp sensation rising from the belly to the tongue on which a trace of sweetness was perceptible.

Another phenomenon was the demonstration by the patient of what appeared to be an aversion from base metals, especially iron and copper. At first he remained quiet, but later everything made of iron had to be removed from the room. If anyone who had any of the forbidden metal on him approached the patient, then the latter knew at once not only the kind of metal, although he had no opportunity of seeing it, but also the place where the metal was to be found, even if it were in the second or third room. The author of the report claimed that it was proved, without any doubt, that the patient really possessed this faculty, since the experiment was often repeated during the course of some seven days.

Any discussion of this amateurishly conducted experiment is unnecessary.

In the German literature of magnetism we again and again come across predictions of a day on which a death would occur. Most

of these reports are inaccurate. Even the acuteness of a scientifically trained observer appears to become less sharp when confronted with such events. We must confine ourselves to referring here to one very characteristic case. Dr. Görwitz, the son of a pastor in Saxony, had ample opportunity to observe the idiosomnambulistic state of his 15-year-old brother, Richard. Richard had been suffering from ill health since childhood. Constant headaches hindered his education, but nevertheless he read a great deal. Occasionally the physician treating him questioned the somnambulistic child about the illnesses and prospects of recovery of his other patients. For example, on one occasion he enquired about the condition of a lady under his care whom he had just visited. "She has," replied Richard, "pulmonary tuberculosis." Then he imitated her cough, in a way both striking and horrible, remarking in a cold-blooded manner, "She is in the last extremity and in a few weeks she will be dead" (71, p. 85). There is naturally no skill required to foresee the death of a person afflicted with acute tuberculosis of the lungs.

On another occasion Richard said to the physician, "The child who was born yesterday, when you were there, is a boy. In the twenty-third year of his life his destiny will take a very serious

turn " (op. cit., p. 156).

This unverified prediction is of no interest, but what on the contrary is of some interest is the subsequent definition of prevision that the 15-year-old boy gave. Asked precisely what he meant by the term "Fate" (Schicksal), Richard replied, "It is the result of the past. The smallest thing, even if it happened before birth, has a result for us and an effect on us . . . If, in my magnetic state, I look into the future, I am seeing all at once the continuous chain of causation" (op. cit., pp. 156-157).

The well-known savant, Professor J. G. Kieser, came with some of his students to investigate the case. From the beginning Richard did not like the professor, whose efforts remained as fruitless as

those formerly experienced with Anton Arst.

From the Court Physician, Karl C. von Klein (1772-1825) comes the following report (72, p. 112). He stated that his brother lay at death's door suffering from an attack of typhus. Three physicians gave him up for lost. He thought of him without saying a word to the somnambule, who suddenly said, "Be quiet, your brother is not dying, but has still some time before him". Three days later the patient was in such a condition that all three physicians supposed that he would die that night. But he recovered and was

fully restored to health. No paranormal powers are needed for such exercises in prognosis. A sensitive flair for diagnosis is often sufficient, or even an unconscious perception, to foresee the recovery or death of a human being.

Again, it is often reported of somnambules that they repeatedly but falsely foresaw the dates of their own deaths, while at the same time they allegedly correctly foresaw the deaths of other people. Assuming that it is possible to foretell the death of a fellow-creature, then in these mistakes we might find a clear indication of an essential source of error in the exercise of the paranormal, namely an indication of the unconscious wishes and fears of the somnambule. Countless reports deal with a telepathic sharing in experiences and misfortunes. In the case of one of his somnambules Arndt relates the following scene. One day, when he was sitting on her bed, she suddenly became restless, uttered a sigh and anxiously gave vent to the following words, as if in a vision, "Oh God, God, my father is dying". After a few contrary passes, she awoke in a cheerful condition and without any memory of the disturbance she had recently experienced. But again she fell twice into the magnetic sleep and each time experienced the same dream. To the question as to what was wrong with her father, she replied that he was dying and was swimming in his own blood. Finally she became quieter and the scene ended. After some weeks Arndt met this lady, who was rather sad and troubled. She had received a letter from her father, who lived some seventy miles away and who said that he had had the misfortune to slip on the cellar stairs and that the door of the cellar hadfallen on his chest, whereupon a violent haemorrhage had ensued, which had made the doctors very concerned for his Arndt, who had made a note of the earlier scene with the somnambule, found that the day and time coincided (22, pp. 16-17). A modern psychologist would at once have travelled to the place and to the spot where the event happened in order carefully to question the father who had met with the accident, together with the physicians and witnesses of the mishap. Arndt does nothing to provide objective evidence in his report. Perhaps reluctance to intrude on the suffering of a fellow-creature was at that time greater than it is today.

Telekinetic experiments were rare and there are very few reports concerning the movement of magnetic needles through pure will-power or through the mere approach of the hands. It is reported of the somnambule Wilhelmine Auguste K., a very intelligent

young woman, that she caused a compass needle to move seven degrees to the west by looking at it. She had only to look sharply at the point to which she wanted to divert the needle. Unfortunately every account concerning the investigation is missing. Somewhat more detailed is the following account.

In the first days of June 1841, Auguste met Countess von K. who had the reputation of possessing strong magnetic powers. Auguste, who fell into a childish state when magnetized, said that she was able to move a compass needle through the exercise of will-power alone. A compass needle some ten inches long, inside an oblong box, was placed on the little table at which the somnambule was sitting. Auguste resolutely refused to attempt the experiment, saying that she could not do it that day. The Countess approached and said that she had already often moved the needle simply through approaching her hand to it, without touching it. At this Auguste cried out that she could do this and then held the outstretched fingers of her right hand about three inches above the edge of the glass case, which was turned towards the north, and put the needle into trembling motion. Then Countess K., by bringing her fingertips in the same way near to the glass, but without touching it, brought the needle into even more vigorous movement. Quivering, it swayed up and down, beneath the place where she was holding her fingers, just as if she had held a piece of iron in her hand. She held out her hand and showed it both before and after the experiment, in order to demonstrate that she had nothing concealed in it (30, pp. 115-116).

Experiments such as these have scarcely anything to do with paranormal occurrences. It is more suggestive to suppose that it is a question of electro-static energy or possibly of some still un-

explained physiological process.

Knowledge of the future, or precognition, is one of the most acclaimed paranormal phenomena exhibited by somnambules. But in the whole of the literature during the early period, scarcely a single episode is to be found that could be classed as precognitive in nature.

Among the earliest reports, that by Dr. Johann C. F. Bährens from Saxony may serve as an example. This savant, distinguished by his high office and position, asked his somnambule R. about the future residence of a certain lady. The following dialogue then ensued: "... Will she be here this coming year?" "No." "Why not?" "There will be war." "Will people also be invading this

locality?" "Yes, many people." "French people?" "No, but many odd-looking and strange people, with white cloaks and pointed head-gear." "Will the town suffer damage?" "No."

Bährens kept secret her prediction of a war, owing to the power exercised by France at the period, but he communicated it to a patriotic friend of proved discretion, Commissioner Zahn of Aplerbeck, a year before its fulfilment, telling him in particular the description of the unusual and strange people who were marching This prediction was fulfilled by the entrance of five hundred Bashkirs on horseback (25, pp. 180-181).

The literal reproduction of the dialogue indicates that Bährens probably kept a case history of his patient's illness. It is, however, not known whether he really ventured to make a written record of his somnambule's prophecy in his diary and it is possible that he first wrote the recorded dialogue some years later from memory. His silence on the matter is understandable. Germany was under the domination of Napoleon and Bährens might probably have exposed himself to the charge of high treason through circulating such a rumour of war.

The Bashkirs belonged to the Cossack army. They actually wore broad white cloaks and pointed headgear and such uniforms are found portrayed in a picture by the nineteenth-century Russian painter I. J. Repin (73). Their tufts of hair on a smoothly shaved skull and their dark faces justified the description of "unusual and strange". Although the report appears worthy of credence, the genuineness of the alleged precognitive effect is unproved. entirely normal anticipation of political developments cannot be excluded.

Dr. Justinus Kerner and the Seeress of Prevorst

Dr. Justinus A. C. Kerner (1786-1862) was both a physician and a romantic poet. 1 Many of his songs are both sung and recited today. His greatest bid for fame, however, was his voluminous report (27) concerning the Secress of Prevorst. When a young man, Kerner had become acquainted with magnetism through Eberhard Gmelin. The Secress, Mrs. Friederike Hauffe, was born in 1801 in the remote little Swabian village of Prevorst, near Löwenstein in Württemberg. Even as a child she wanted to see spirits and almost all her relatives allegedly saw them. At the age of 19 the

¹ For a biographical report in English of Kerner and his works see The Pioneers of the Spiritual Reformation by Anna Mary H. Watts (London, 1883).

girl became engaged to a relation of the family, whereupon she fell into a transitory period of depression. At 20 she was married and her depression increased, whilst after the birth of her first child a marked hysterical condition developed. She gave birth to a second child and then, aged 25, she was brought in 1826 to Dr. Kerner at Weinsberg, near Heilbronn in Württemberg. On her arrival she was in a state of extreme debility, a veritable picture of death. Her condition is thus described:

"Every three or four minutes a spoonful of broth had to be given to her which she was unable to swallow, but merely took it into her mouth and spat it out again. If it were not given to her she fainted, or had convulsions. Her gums were swollen as if from scurvy and were always bleeding, while all her teeth had fallen out when she was at Löwenstein. Convulsions, together with the somnambulistic condition, alternated with a fever, to which was added night sweats and blood in the stools" (27, p. 49).

Kerner, who later was called the "Magician of Weinsberg" first tried to treat Mrs. Hauffe without using magnetism, in spite of his interest in mesmerism and anything apparently supernatural. He wrote:

"When she was awake I went to her and explained to her briefly and seriously that I was determined to take no notice of what she said in her sleep and that I did not even want to know what it was and that her somnambulistic condition, which had already lasted so long and caused unhappiness to her relations, must finally come to an end " (op. cit., p. 49).

As Kerner's treatment, which had already lasted for many weeks, produced no results, he finally had recourse to magnetism. Kerner no doubt tried to make a precise examination of the paranormal phenomena and hallucinations of his patient. The diaries and reports are detailed and scrupulously drawn up. But at the same time, as a sentimental mystic, he was both easily influenced and suggestible. How far he and his associates allowed themselves to be impressed can be seen from a report by Johann U. Wirth (28, pp. 296-297).

J. U. Wirth was born at Ditzingen in 1810 and died in 1859. He was a theologian keenly interested in philosophy, being much interested in Hegel during his early studies. At one time he held an ecclesiastical post at Weinsberg, but his philosophical studies occupied most of his time. His interest in ethics prompted the publication of his book System der Speculativen Ethik (Heilbronn, 1841)

and later he published another volume on the Deity, which he entitled *Die Speculative Idee Gottes* (Stuttgart, 1845). Although undoubtedly more critical than many of his contemporaries, Wirth accepted some of the higher phenomena of mesmerism including thought-transference at a distance, which he links with the *rapport* obtaining between operator and subject (28, pp. 216 ff.).¹

Together with two other educated men, on one occasion Wirth kept watch over a "ghost seeress" in Weinsberg, who later had to be exposed as a fraud² and he writes thus about the case, saying:

"Both my neighbours insisted that they saw 'a light moving here and there through the room 'although, however, I was not able to perceive anything. I now put the secress to the test and indicated the place where I asserted that I saw the apparition. Every time she confirmed my statement. She had often said that the spirit towards morning would make movements with a rattling noise against the windows, so I asked her to induce the spirit to do the same at my window.

"Towards four o'clock in the morning, when we all had been asleep, we were awakened by a loud rattling of the window situated immediately over the secress but the spirit did not make itself heard at my window...

"In the morning I found little heaps of sand near the bedstead of the secress, just as if they had been thrown by hand. I must say I was astonished when I heard intelligent men in Weinsberg say that they had not only seen the light with the secress and had heard those sounds, thinking that they were supernatural phenomena, but also that the spirit had indeed come into their own dwelling and there had made itself known through all manner of sounds. I was no longer surprised to hear that Kerner had asserted the same thing" (op. cit., pp. 296-297).

In spite of Kerner's somewhat unreliable observations, some of his reports are still today of a certain interest. Especially so is the history of the schizophrenic Countess of Maldeghem, which deserves some attention, since she received both advice and healing from the Seeress.

When a child of 6 years old, the Countess had once fallen asleep for some hours when alone in a poppy field. When they forcibly awakened her, she was scarcely able any longer to recognize her nurse and her brothers and sisters. She was to some extent restored to health, but since that time she often suffered from feelings of

¹ For further details of this author see J. E. Erdmann, Grundriss d. Gesch. d. Philosophie, 4 Aufl., Berlin, 1896, I, pp. 822-825: Württemberg Merkur, 1879, p. 1245.

² This lady had a great reputation at the time, but is not to be confused with the Secress of Prevorst. According to Wirth, Kerner believed in her phenomena as well as those of his own secress.

estrangement which at times manifested themselves as an acute mental disturbance, leading her to doubt the reality of her own personality. At the age of 23 she married the Count of Maldeghem.¹ At the birth of her second child she suffered an onset of severe schizophrenia. There now appeared tormenting feelings of inadequacy, ideas of sin and experiences of estrangement, to name but a few of the more serious symptoms. When all medical assistance had failed, the Count decided, with the consent of his physician, to go to see the Seeress of Prevorst. Mrs. Hauffe prescribed an amulet of laurel leaves and a nine-day diet. During this cure the Count had to lay his hands on his wife for a quarter of an hour three times a day. Actually the Secress in the magnetic state said to the Count, "Thou must not begin with laying on the hands on a Wednesday, but it must be every morning at nine o'clock" (she used the word "thou" only when in the magnetic state). "At the same moment when thou layest thy hands on her, I shall be falling asleep here and then no one must ask me anything and I will say nothing: I am praying for her" (27, I, p. 173).

Kerner further reported that on 31 March 1828 the Count returned to Ulm, a thirty-hour journey, and began the cure of his wife according to these directions on the morning of 3 April at nine o'clock (as Kerner afterwards heard from him). On this morning Mrs. Hauffe, quite contrary to custom, fell into the magnetic sleep, saying nothing but having her hands crossed over her breast as if in silent prayer. From that time she had a certain feeling as if she were always in rapport with the Countess and this continued until the 7th, when the feeling increased, although she said nothing about it until Wednesday the oth, when it increased so much at noon that she kept on saying that she did not know how to help any further, crying out at six o'clock loudly, "Cast all thy cares upon the Lord, for He careth for thee". Immediately after calling this out she said she had seen a ray of light, on which there was a picture which disappeared before she was able properly to understand it. She did not know what it was, but felt in the deepest recesses of her heart that a change had taken place in the Countess. This feeling quietly remained with her until Friday the 11th, on the morning of which she again fell asleep. In the evening she again experienced the same feeling as if a change had taken place in the Countess and then the feeling again passed away.

¹ Graf Karl Leopold Ludwig von Maldeghem was born in 1797 and died in 1877. In 1823 he married Maria Anna (1800-1856), daughter of Prince von Waldburg-Zeil-Wurzach.

On the 14th Kerner received the following lines from Count von Maldeghem. Dated at Ulm on 11 April 1828, it read:

"Please write to me as soon as possible and tell me whether, on Wednesday, April 9th, at six o'clock in the evening, you noticed anything peculiar about Mrs. Hauffe, or if anything has occurred with her in connection with my wife. I am not asking this without a reason and together with Dr. Endres¹ am anxiously awaiting your reply."

Kerner could only reply to the Count by telling him what he had entered in his diary as to what happened on 9 April at six o'clock in the evening in connection with Mrs. Hauffe and the Countess, his narration being confirmed by other witnesses.

On the morning of the 18th, Mrs. Hauffe asserted that she had the feeling that the Countess would arrive that day and actually both the Count and the Countess put in an appearance that evening. The Count stated that for six days he had carried out the directions for the cure to be given to his wife, without noticing any marked change in her condition. On the seventh day, however, that is on Wednesday evening at six o'clock, the Countess had called him away from the company with which he was engaged and had told him that when six o'clock had struck she had found herself all at once in the closest rapport with Mrs. Hauffe and had felt that she was compelled in this condition of rapport to tell her husband something which she had never told a living soul. From now on and after this revelation to the Count, her former delusions disappeared and the Countess was transported from a dream state into the real world. She now again recognized both the Count and her children and also expressed a desire again to visit her estate at Niederstotzingen, a small place between Aalen and Ulm.

The Countess now spent some weeks in Weinsberg. Her condition was essentially better, but all the symptoms had not yet disappeared. Every day in the magnetic condition Mrs. Hauffe prayed with her, until on 12 May she was able to leave, fully restored to health. In 1832 Kerner reported that the Countess still remained in perfect health. After her alleged cure three children, Camille, Arthur and Heinrich, were born.

This story is not only interesting from the point of view of the parapsychologist. What is here described is nothing other than the successful psychotherapeutic treatment of an onset of schizophrenia carried out in the form of spiritual healing at a distance. Seventy years before Freud, we here find a description of a catharsis: the

¹ Dr. Karl Endres (d. 1849) was the Count's personal physician at Ulm.

Countess overcomes the traumatic experience which may have occasioned the onset of herschizophrenia through an affective conversation with her husband and through transference with the Secress.¹

If we consider that Freud achieved his first success in healing through hypnosis, then the supposition cannot be excluded that in the case of the Countess Mrs. Hauffe occasioned a catharsis through telepathic-hypnotic influence. Even if the truth of this supposition cannot be proved, it is certain that a telepathic rapport must have existed between Mrs. Hauffe and the Countess. The entries in Kerner's diary of a April suggest it, as also does the wording of the letter which the Count sent to Kerner on 11 April. A further indication is the simultaneous occurrence on a April at six o'clock of the sudden success of the healing and visionary conviction of the Secress that a change in the condition of the Countess must have taken place. The possibility that Kerner and the Count could have come to a secret agreement in order to puzzle their associates is one that can be confidently excluded on account of its improbability. A secret agreement between the Count and the Secress is also scarcely conceivable and the falsification of the entry in Kerner's diary is improbable, even if possible. Perhaps the easiest theory might be to consider it to be a case of synchronicity in the sense used by C. G. Jung. If, however, we can accept in principle the possibility of a telepathic rapport between two persons, then we have an easy explanation both for the healing and for the concomitance of the success of the healing with the vision of the Secress.

Kerner also conducted many experiments with metals and with every kind of plant and animal substances. For instance, the patient when in the waking state was able to touch any metal with impunity, but in the somnambulist condition she reacted with severe convulsions. Kerner believed in all good faith that these convulsions were a necessary part of the healing process. The patient, indeed, herself desired them. He also gave a report about an unusual psychic automatism occurring on a day when the hallucinations of the Seeress were making her very unhappy. It happened in this way. In an incredibly short period of time Mrs. Hauffe drew two circles and in making the several hundred dots by which these circles were divided she used no compass or other instrument. She drew the whole in freehand and not a single dot was wrong. In this work she was like a spider which constructs

¹ Transference is a phenomenon discovered by Freud. In the course of a psycho-analytic treatment the patient transfers his disturbed emotional tie on to the analyst.

its own artificial circle, without any perceptible instrument. As soon as she tried to use a compass, which Kerner offered her, she made mistakes (27, I, p. 196). For these extremely complicated geometrical drawings, Mrs. Hauffe gave equally complicated mystical interpretations. She spoke especially of a life-circle and a sun-circle. Her explanations extend to several prolix chapters, which in modern times still appeal strongly to those who are inclined to mysticism.

On one occasion Kerner had a lithograph made of the lifecircle, filled with its many strange designs, and laid it before the Secress. For a year before Kerner brought the lithograph to show her she had not seen this life-circle. She read the characters on it and immediately noticed a part of it which had one dot too many. She had not the original by her for comparison, so it was brought and it was found that she was perfectly correct. Kerner asked her if he should erase the dot, but she said that the mistake should remain, since no one except herself understood these characters (op. cit., I, p. 251).

Mrs. Hauffe later made another drawing, this time, however, only a rough sketch. For this, also, she gave detailed explanations. Although she executed the first drawing under, as it were, some inner impulsion, in the case of the later drawing one suspects that this may have been due to a hysterical intuition as to what Kerner

wanted and expected.

The whole of the second part of this comprehensive book is dedicated by Kerner to what he calls "Facts" (*Tatsachen*), although there is little but anecdotal material with no objective value. Still, the first of these facts deserves some consideration.

A few days after her arrival in Weinsberg, Mrs. Hauffe began to experience in her magnetic sleep the hallucination of an unknown person who appeared to be in need of something.¹ Kerner noted down the following utterances of the Secress.

"25 December, 1826. That man is here again and he is disturbing me in my sleep. What is it that he is showing to me? I see a sheet covered in figures, but not quite a folio size. The top right-hand corner is slightly bent down; and in the left-hand corner there is a number. Don't I see under the first row of figures an 8 and an o? I can't see it clearly.... This paper is lying under many documents and is not visible. He wants me to

¹ For a critical commentary on the apparitions (*Geistererscheinungen*) seen by somnambules, with special reference to the Secress of Prevorst see (28, pp. 282 ff.). It is clear that Wirth was dubious about contemporary explanations put forward for these appearances.

tell my physician and then send out a warning. But why must he torment me so? Couldn't he tell his wife about it? He wanted to tell it before his

death, but he did not think he was going to die.

"26 December. The paper lies in a building some sixty paces from my bed." In this I see a longer and then a smaller room, where a tall gentleman is sitting, working at a table. He then goes out of the room and now he is coming back. Beyond this room there is a larger one, in which there are some boxes and a long table and I also see a long chest and another one which is near the entrance and of which the hinged door is slightly open. But these chests and boxes do not concern this man. But on the table there is something made of wood—I can't give it a name—and on this three piles of papers are lying. The pile on the right has nothing to do with this man, but in the other two I feel that something is connected with him and in the middle one, a little below the centre, is that sheet of paper which so torments him."

After this exhibition of clairvoyance, she awakened in a distressed and extremely exhausted condition. Kerner recognized the building described by Mrs. Hauffe as that of the local Higher District Judge, Mr. Heyd, which was at the distance mentioned. Although he considered that this vision of Mrs. Hauffe was rather in the nature of a dream, he went the next day to see Mr. Heyd and tell him of the vision and the story given by Mrs. Hauffe, as it was recorded in his diary, and also to ask him to go through with him the documents indicated by Mrs. Hauffe, in order to prove (as it was his opinion that nothing would be found) that the vision was merely an empty dream. Judge Heyd, who could not make anything of the affair except that it was a dream, told him at once that Mrs. Hauffe had at least seen correctly about his being seated at work at the time and place indicated where, however, he rarely sat. He also confirmed the statement that he had once gone into the other room where he noticed that the hinged door of the chest by the door was half open.

This coincidence struck the two men very forcibly, but they were both confirmed in their belief that it was a case of a dream when they went through (although perhaps too hastily) the documents indicated, which were indeed in the position seen by Mrs. Hauffe and failed to find the paper concerned (27, II, pp. 93-94).

The Seeress, however, returned again to the subject, declaring that the man concerned was disturbing the progress of her cure. On 31 December she awakened feeling very weak, which induced

¹ It is to be remembered that Mrs. Hauffe is stated never to have seen this building.

Kerner to visit the Judge again to search for the document for the second time. He reports:

"We found in a folder, just as had been described by the Seeress, a sheet of paper with figures and words in the hands of the man concerned. The first number was 80 and the first letter a J and the right upper corner was bent over as if it had been so for a long time, a sight which caused a thrill to run through me. We agreed to tell no one about finding this sheet and I asked the Judge to be present again the same evening during Mrs. Hauffe's sleep. . . . When she spoke she said, 'There he is again, but he looks calmer. Where is the paper? It must be found.' I myself thought that it was in the Judge's pocket. After some time she said, 'All the papers are no longer there; the first pile is not there and the other papers are no longer in position. But I am most surprised! There is the paper lying open which the man has usually in his hand. . . .'

"Judge Heyd was astonished at what the Secress said about the position of the documents and especially about the particular paper (as he himself told me when outside the room) for, in order to test the truth of the vision, he had put the paper back, laid open just as she had asserted. But, as I have said, I was of the firm opinion that the Judge had the paper in his

pocket " (op. cit., II, pp. 98-99).

The following circumstance is closely connected with this The unknown man who so persistently pursued Mrs. Hauffe in her visions was, according to her detailed description, the manager of the wine store of one Fezer and he had been dead for some years and had embezzled considerable sums. The Judge and Fezer, who had been wronged, alone knew that the document was the only proof of guilt, if the statements are to be believed. According to Kerner's record, the Secress was a complete stranger in Weinsberg and until she arrived did not even know Dr. Kerner. Moreover, at the time she was "completely worn out and incapable of getting up or going to bed". That it was the case of a preconceived arrangement between the desperately ill patient and Fezer can scarcely be assumed: apparently she first got to know him after she had already spoken of the apparition. Fezer was later accused of wishing to bring disgrace on the memory of the dead man. For that, however, he would not have needed the help of the Seeress, since the proof of the guilt of the untrustworthy manager was known to him without it.

Judge Heyd furnished the following explanation:

"Even if incredulity must regard everything as the result of suggestion, and even of a plot, the following remains inexplicable.

 The fact that only I knew that I was sitting at work in an unusual position on the last day of the Christmas holiday.

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- 2. The fact that quite accidentally and contrary to regulations a chest was open in the Judge's room, which had remained unheated for that week and was closed except to myself and my assistants.
- 3. The accurate determination of the position of the document which was not found in its correct numerical order.
- 4. The indication of the small and long-standing bending of the corner of the paper of the document in question " (op. cit., II, pp. 109-110).

We know of no one else who could have been acquainted with official secrets and who at the same time had access to the Secress. The agreement between the visions and their counterparts sometimes extends to the smallest details. All this points to the fact that here we might have to consider an experience of a telepathic hallucinatory nature.

Another of the "Facts" that might be interpreted as an experience of a clairvoyant hallucination is that in which the Secress was told by a "white spirit" that he was earth-bound because in 1714 he had defrauded two orphans. This man, Bellon by name, when 79 years old had lived in a house in Weinsberg inhabited by the two orphans. It is characteristic of these and similar reports that the spirit did not relate its own history in a straightforward way. but that it appeared repeatedly to the Secress over a period of time and then she gradually revealed the details. In his Musterien1 C. A. A. von Eschenmayer describes the further course of events. Dr. Kerner asked Mayor Pfaff to look through the legal documents to see if anything could be found there as the name Bellon was not known even to the oldest inhabitants. It was found that in the year 1700 there was a burgomaster and director of an orphanage called Bellon and in the year 1740 the division of his property took place. Dr. Kerner now consulted the register of deaths and found Bellon's death reported in 1740, together with the statment that he was 79 years old. Other documents provided evidence of avarice and confirmed that he had lived in the house named, in which, according to his own assertion, there were two orphans.

This story of the agreement of the assertion with the actual facts is the more convincing in that previous discussions and agreements may be discounted, since the name Bellon was extinct in Weinsberg and no family of that name was remembered. Much sophistry would be needed here to point to a deception. The statements of the Seeress referred to events both long past and long forgotten. Her assertions, also, cannot be ascribed to responses to leading questions. The accuracy of the agreement, with the exception of a few errors,

¹ Mysterien der innern Lebens . . . Tübingen, 1830.

precludes it from being coincidental and the genuine conviction of Kerner provides a guarantee for the authenticity of his report. Kerner regarded these visions as real apparitions from the Other World, as an intrusion by the spirit world into this world. Never on the slightest occasion did he consider the possibility of telepathic or clairvoyant phenomena of a hallucinatory character. However, although the symbolic language of many dreams was understood by this romantic poet-physician long before Freud¹ he remained unaware that symbolic hallucinations might be regarded as transformations of telepathically received impressions.

Kerner continued to push his unfortunate Seeress ever further into the web of her hysteria. In 1829 she returned to Löwenstein full of apprehensions of death, which she derived from the calculations of her life-circle and from her dreams. On 2 August 1829, three days before her death, she cried that as truly as God lived her life would scarcely last three days longer. Dr. Off who conducted the post mortem asserted that he had never met with such a healthy and beautifully formed brain.

Justinus Kerner was after his death in 1862 honoured with a monument by the citizens of Weinsberg and the Kerner-Haus became a much visited memorial. In this way they gave their thanks to the beloved doctor and popular poet whom they willingly

forgave for his belief in spirits.

It would probably be unjust to impute to Kerner the early death of the Secress of Prevorst. There was, however, a contemporary figure who might have saved her, namely the Austrian physician, Professor Franz W. Lippich (1799-1845). It was he who cured the seeress of Dobrova, who for years had excited much attention and had attracted crowds of curiosity seekers. The ghostly visions of the girl soon disappeared, since Lippich took no notice of them and directed the attention of the somnambule away from This intelligent savant recognized that an outspokenly hostile attitude to the hallucinations would be as harmful as a credulous or thoughtless acquiescence in them. Kerner committed both these mistakes with the Secress of Prevorst. At the start of the treatment he sternly declined to accept all the visions and only later he acquiesced in them with mystical enthusiasm. The Dobrova seeress was cured after a few weeks and fell into oblivion. Today only a sober report (74, pp. 58 ff.) by Lippich serves still to remind us of her. Dr. Kerner's unhappy seeress on the contrary remains unforgotten.

Kerner's mystical interpretation of a natural occurrence ¹ Cf. (28, pp. 258 ff.).

inevitably led to a development of mesmerism that was both unsatisfactory and wrongly directed. The first step towards Spiritualism had been taken. In Kerner's report of 1829 concerning the Seeress of Prevorst he makes frequent mention of rapping spirits and in 1853 appeared his book *Die somnambülen Tische* (Stuttgart, 1853) which shows the influence of American Spiritualism.

After the unfortunate development of mesmerism occasioned by Kerner, we find in German literature devoted to magnetism ever more frequent reports of possession. Visions of ghosts, mystical ecstasies and cases of possession appear at all periods (29, 76). What was new was the interest that serious scholars took in these phenomena. New also were their interpretations. To complete our survey we should like to refer briefly to one of the numerous fantastic stories that were reported in Kerner's Magikon (77) and in his Blätter aus Prevorst (78).

Kerner was asked to treat a case of possession in a peasant girl living in Orlach near Geislingen in Württemburg and some thirty-eight miles from Stuttgart. She asserted that since the age of 20 she had been persecuted by spirits. Everykind of ghostly disturbance was reported, even of arson, and everything was attributed to these ghosts. After five months of this commotion, it was alleged that a white and a black apparition frequently appeared to the girl. Kerner notes how she was comforted by the white ghost which told her that the physicians wrongly thought that she was mad and also that her sufferings would end on 5 March of the coming year, provided she saw to it that her father's house was pulled down before that date. The parents in their despair actually declared that they were ready for this. On 4 March 1833, the house was well on the way to being demolished and the white ghost was said to have appeared again to the girl and related the following:

"When twenty-two years old I was brought, disguised as a male cook, by that monk, the black one, from the nuns' cloister into that of the monks. I had two children by him, both of whom he murdered soon after birth. Our unhallowed alliance lasted four years, during which he also murdered three monks. I revealed his crime, but not in its entirety, then he murdered me also "(79, pp. 41-42).

After that the black ghost appeared in order to confess his guilt, as follows:

"My father was a nobleman from Geislingen, an hour's distance from Orlach.... I entered the monastery at Orlach, where I soon became the

Superior. The murder of several of my brother monks, nuns and children whom I begot from them weighs on me. . . . As Superior I knew how to entice my victims into a secret place, there to stab them to death. Their corpses I threw all together into a hole in a wall " (op. cit., pp. 44-45).

On 5 March the last remains of the walls of the house were demolished. It was before half past eleven. The people who were pulling down the house had reached the last remains of a piece of the wall which formed the corner of the house and which was quite different from the other part. While the other walls were only mud walling, this portion was firmly constructed of special limestone, so that it seemed that this wall was originally a part of a very old building. It was half past eleven in the morning when this section of the wall collapsed and the girl, who could not see this. bent her head down three times on the right side and her eyes opened. The entity (Dämon) had left her. . . . When clearing the debris during the ensuing days they found a hole similar to a well about ten feet in diameter and which had been excavated up to twenty feet in depth. In this and elsewhere in the debris of the house the remains of human bones were discovered, including those of children. From that hour the girl remained completely healthy (op. cit., pp. 45-47).

As in most ghost stories, almost the whole of the occurrence can be explained by reference to hysteria and mischief, except for an inexplicable residue, namely that the ghostly apparition acquainted the girl with the existence of a hole filled with bones, which actually

came to light when her parents' home was demolished.

Kerner confidently asserts, "I am thoroughly acquainted with the country people of our district, with their beliefs and superstitions, and I am able to certify that in our Protestant region the people know nothing about old monasteries, black monks and white nuns" (op. cit., p. 64). We are unable to share his conviction.

It is now impossible to study this case more closely, but it is worthy of notice that it was taken seriously at the time. At that period a whole series of theories about apparitions was developed. The more critical, such as the Basle professor, Friedrich Fischer, regarded ghosts and apparitions simply as hallucinations (80, p. 201). Eschenmayer, who was always more inclined towards mysticism, believed in protecting spirits who aroused prophetic powers in their somnambules (92, p. 8: cf. 36, p. 35). Kerner, for his part, developed the following theory regarding possession. He conceived it as a monstrous and "demonic-magnetic" affliction.

Such an affliction could be relieved, according to his ideas, only through "magical-magnetic" practices and through mesmerism and prayer (81). As a matter of fact Kerner had cured many epileptics and persons suffering from mental disorder through these methods. Doubtless the most fruitful theory, and the one most agreeable to modern ideas, was that held by Wirth. According to this, the capacity to see apparitions depended on the personification of inner impulses. Such personifications could be experienced as imaginary figures which hovered around the patient, but they could also be experienced as playing an oppressive and dominating role. In cases of possession these personifications took possession of the instincts and desires of the patient. The understanding of the schizophrenic dissociation of personality is anticipated by this theory (28, pp. 274-276).

Above all, magnetism under the influence of Kerner became increasingly a link with mysticism, ghostly phenomena and superstitions. The ground was prepared for the triumph of Anglo-American

Spiritualism.

German magnetic investigation came to a standstill in 1850, either on account of the antipathy towards the unfortunate development of mesmerism or the desire for new sensations which the Spiritualistic séances offered. It was in 1880 that interest in mesmerism, in the meantime transformed into hypnotism, was again aroused through the public experiments of the Danish stage performer Carl Hansen.

The Development from Mesmerism to Hypnotism

The term hypnotism was coined by an opponent of mesmerism, the English physician James Braid. To his surprise, Braid discovered an effective hypnotic method. He got members of his family to gaze uninterruptedly at a shining object, somewhat above eye level and through this means put them into a condition resembling sleep. From this new method he formed the theory that in hypnosis the equilibrium of the nervous system is disturbed through the paralysis of the musculature of the eyelids. Consequently he believed that the theories of the magnetic fluid and of the influence of psychic forces had been proved to be incorrect. He did not, however, continue to hold this theory, but after further experience recognized that what was important was not so much the method of hypnotizing but rather the narrowing of consciousness that was achieved.

Braid at first attracted little attention. In Germany, after 1850, the theory of magnetism was still held. Only the Austrian, Freiherr von Reichenbach, aroused much interest; like Braid he came forward as an opponent of mesmerism. Reichenbach believed that he had discovered a force somewhat similar to the magnetic fluid, although physically demonstrable, which he called "od". This od force he traced back to a physiological process and for this reason believed that the theory of the fluid was invalid.¹

About the year 1880 the Danish magnetizer Hansen directed the interest of the German public again towards hypnotism through his exhibition of hypnotic experiments. With this new and awakening interest coincided a stimulus from France. In Paris Charcot was busy with the hypnotic treatment of hysterical symptoms, thereby helping Braid, although apparently unintentionally, towards post-humous recognition, and in Nancy Liébeault and Bernheim were developing successful methods of suggestion. It was at this time that recognized German savants began also to concern themselves with hypnotism, which they all insisted had nothing to do with mesmerism. On the other hand, there were at that time, as today, still magnetic operators who kept themselves apart from hypnotism.²

¹ It is for this reason that it has not been thought appropriate to include an account of Reichenbach's long series of experiments with his "sensitive" subjects. He was of the opinion that "sensitives" were simply persons of a specific nervous excitability and that they comprised a third if not a half of the human race. To him "od" was a general physical force, while mesmerism was a particular application of that force to Mesmer's therapeutics. He stated that he had no patience with the magnetizers whose writings "swarm with miracles", as he put it. He admitted that he had started from the astonishing facts of somnambulism but had not allowed himself to be carried away by them. This was one of the reasons why contemporary English students of magnetism, such as A. J. Ellis and Dr. John Elliotson, said that Reichenbach had experimented with very few mesmerized persons and appeared to know very little about mesmerism.

His attitude was clearly illustrated when he met J. J. Berzelius in Karlsbad in 1845. An acquaintance of Reichenbach, Dr. Hochberger, found a lady who was willing to offer herself for experiment and who began by telling them about some wonderful somnambulistic events that she had experienced. Reichenbach was so annoyed that he interrupted her, saying that these were psychical phenomena and had to be left to psychologists. In his account of the ensuing experiments there appears to be no suggestion that the lady in question was in anything but her

normal state. [Ed.]

² See C. Bäumler, Der sogenannte animalische Magnetismus oder Hypnotismus (Leipzig, 1881), pp. 12, 13; W. T. Preyer, Die Entdeckung des Hypnotismus (Berlin, 1881), pp. 6, 35, 49; H. Obersteiner, Der Hypnotismus mit besonderer Berücksichtigung seiner klinischen und forensischen Bedeutung (Wien, 1887), p. 49; C. Mendel, Der Hypnotismus (Hamburg, 1890), pp. 10, 11, 12; W. Wundt, Hypnotismus und Suggestion (Leipzig, 1892), p. 13; M. Hirsch, Suggestion und Hypnose, (Leipzig,

Just as the strong philosophical currents of the Age of Enlightenment and of Romanticism left their imprint on the investigation of magnetism, so was the investigation of hypnosis characterized by an abrupt rejection of philosophical conceptions and hypnosis was now investigated by means of exact scientific methods. The romantic had delighted in paranormal phenomena. To a natural scientist they must have been regarded with loathing: when possible he exposed them as fraud and deception, or at least gave to them a normal psychological explanation. The extreme opposition between romanticism and positivistic natural science accounts for the apparently strange opposition between mesmerism and hypnotism. Both mesmerists and hypnotists had one and the same artificially created twilight state for their object and yet both sides strictly disclaimed having any connection with one another.

The theories of hypnotism that in the period 1850 to 1900 were developed may be divided into three groups. One group of well known investigators, which included W. Wundt and A. Forel, under the influence of Charcot, were inclined towards the conception that hypnosis was caused by a physical stimulus, especially by a weak, continuous and monotonous stimulus, or by fixing the eyes on a shining object. It was assumed that such a stimulus deadened the activity of the cerebral cortex, or in other words occasioned a narrowing of consciousness, or twilight state. The second group, which included A. Moll and E. Du Bois-Reymond, held the view that it was only a small step from this conception of hypnosis to its interpretation as an artificially induced mental disturbance. A third group, which included C. Du Prel, referred hypnosis to purely psychic influence, namely to suggestion. The representatives of this group, under the lead of Liebeault and Bernheim, considered the hypnotic state to be a special form of sleep.

Moreover, even at that time there were still a number of persons who dismissed hypnotic phenomena as fraudulent. Side by side with the theories of hypnotism, the old belief in a fluid was again revived by some scientific outsiders and laymen, and spiritualistic and nature-

^{1893),} p. 9; J. Ochorowicz, Magnetismus und Hypnose (Leipzig, 1897), pp. 68, 90, 91; H. R. P. Schroeder, Die Heilmethode des Lebensmagnetismus (5 Aufl., Leipzig, 1898), p. 19; L. Loewenfeld, Der Hypnotismus (Wiesbaden, 1901), pp. 31, 32, 33; F. Moser, Der Okkultismus (München, 1935), I, pp. 54, 208; R. Tischner and K. Bittel, Mesmer und sein Problem (Stuttgart, 1941), p. 355; D. Wyss, Die tiefenpsychologischen Schulen von den Anfängen bis zur Gegenwart (Göttingen, 1961), pp. 4 ff.

philosophic theories of spiritism were also again brought forward.1

Paranormal phenomena were only rarely investigated. For all genuine phenomena of this kind, the hypnotists had no kind of explanation. Instead they were able to point to two main sources of apparent, but in no sense genuine, paranormal effects, namely unconscious muscle movements and hyperaesthesia, that is to say the over-sensitivity of a sense organ.

Cases of hyperaesthesia were already known to the mesmerists who, for the most part, saw something supernatural in these phenomena. According to W. B. Carpenter the table tipping and automatic writing that were so popular could be explained without difficulty by scientific men as due to unconscious muscular movements. Thought-reading also was referred by them, in a great majority of cases rightly, to the interpretation of unconscious muscular movements. Clairvoyance was connected with a transitory faculty to perceive infra-red rays or other vibrations and also with the shifting of the stimulus threshold.

Apart from the recognized sciences, spiritism flourished after the middle of the century. Spirits were called up with religious fervour and they allegedly made themselves known through raps or the automatic writing of a medium. Materializations of spirits were produced and photographed. Although these phenomena may appear grotesque to us today, nevertheless philosophers of

rank concerned themselves with them.

Besides countless modifications of the old spiritistic theories about psychic and extra-mundane forces a new kind of interpretation of paranormal phenomena began to emerge. This was derived from the Kantian theory that space and time have no reality, but are solely forms of our own perception. No less a figure than

¹ See H. B. Schindler, Das Magische Geistesleben (Breslau, 1857), p. 113; R. Heidenhain, Der sogenannte thierische Magnetismus (Leipzig, 1880), pp. 18, 25, 27; C. Bäumler, op, cit., p. 56; C. Rieger, Der Hypnotismus (Jena, 1884), p. 39; W. H., "Gerald Massey wider Eduard von Hartmann" (Sphinx, 1886, I), pp. 334-337; C. Du Prel, Hypnotismus als Erziehungsmittel (München, 1888), p. 4; A. A. Liebeault, Geständnisse eines ärztlichen Hypnotisten" (Sphinx, 1888, V), p. 44; A. Forel, Der Hypnotismus (Stuttgart, 1889), pp. 10, 12; C. Mendel, op. cit., p. 12; C. Du Prel, "Die Suggestion vor Gericht" (Sphinx, 1891, XI), pp. 268-269; A. Moll, Der Rapport in der Hypnose (Leipzig, 1892), pp. 288-291, 494; W. Wundt., op. cit., pp. 26, 27, 35, 39; M. Hirsch, op. cit., pp. 6-8, 27, 36, 37; J. Ochorowicz, op. cit., pp. 91, 92; P. Z., [i.e. P. Zillmann] "Die deutsche Hochschule für Magnetismus" (Metaphysische Rundschau, 1897, II), p. 150; T. Van Straaten, "Kritik der hypnotischen Technik" (Zeitschrift für Hypnotismus, 1900, IX), p. 194; R. Gerling, Handbuch der hypnotischen Suggestion (3 Aufl., Leipzig, 1908), pp. 57, 58; R. Tischner and K. Bittel, op. cit., pp. 270, 302, 351.

Schopenhauer deduced from this the possibility of clairvoyance. Worthy of mention also is Zöllner's theory of the fourth dimension of space. Given this fourth dimension, then both telepathic and telekinetic phenomena might be explained. In order to test the correctness of his theory this well-known astro-physicist did not hesitate to attend spiritistic sittings.¹

Hypnotism soon won for itself a place in countless university clinics and was freed from any taint of mysticism. The subjects were treated as if they were automata and, apart from the scientific experiments, were often used for shows and amusements. This would have been impossible for the majority of the old magnetizers, who believed in the purity and divinely favoured nature of their somnambules. Even crimes were ordered under hypnosis and in many cases actually carried out. Lively interest was taken in systematic experiments for the production of stigmata and under hypnosis first-degree burns were produced on the skin of the subjects. Animal hypnosis, also, contributed to destroy the halo of supernatural endowment in the hypnotic state

Not only the subjects but also the operators lost their halos. Hypnotism was no longer a question of a force which emerged from the hypnotizer but rather a matter of fixation and auto-suggestion. The hypnotizer was no longer a person gifted with almost supernatural power but a skilful agent with whose help the subject put himself into a special condition of consciousness. However, on the fringes of science the point of view was fostered that the hypnotists and their subjects were strange and unusual, a time honoured belief too deeply rooted in the instinctive magical feelings of mankind for modern hypnotism to be able to dispel.²

² See Münninghoff, Das eigentliche Wesen der Krankheiten (Leipzig, 1881), p. 67; G. Gessmann, Magnetismus und Hypnotismus (Wien, Pest, Leipzig, 1887), pp. 67, 65, 66; E. Bleuler, "Zur Psychologie der Hypnose" (Münchner mediz. Wochenschr., 1889, Nr. 5, Jahrg. 36), pp. 76-77; W. Reichel, Der Magnetismus und seine Phänomene (Berlin, 1892), pp. 9, 13; F. Köhler "Experimentelle Studien auf dem Gebiet des hypnotischen Somnambulismus" (Zeitschrift für Hypnotismus, 1897, VI), p. 361; J.

Ochorowicz, op. cit., pp. 86, 92.

¹ See J. C. F. Zöllner, Wissenschaftliche Abhandlungen (Leipzig, 1878), I, pp. 272-274; E. L. Fischer, Der sogenannte Lebensmagnetismus oder Hypnotismus (Mainz, 1883), pp. 78, 79; C. Rieger, op. cit., p. 63; J. G. Sallis, Der tierische Magnetismus und seine Genese (Leipzig, 1887), pp. 79, 80; C. Du Prel, "Übersinnliche Gedankenübertragung" (Sphinx, 1888, V), p. 26; G. Gessmann, "Muskellesen und Gedankenübertragung" (Sphinx, 1890, IX), p. 7; W. T. Preyer, Der Hypnotismus (Wien und Leipzig, 1890), p. 135; C. Kiesewetter, Geschichte des neueren Occulismus (Leipzig, 1891), pp. 667, 673, 675; C. Du Prel, Die Entdeckung der Seele durch die Geheimwissenschaften (Leipzig, 1894-5), I, pp. 168-170, II, p. 41; A. Schopenhauer, Parerga und Paralipomena (Leipzig, 1895), p. 281.

It is not surprising that in the literature there is scarcely any mention of hypnotism or of telepathic rapport. Zöllner reports (82, III, p. 529) an experiment which Hansen performed in the presence of professors and students in the Surgical Clinic in Leipzig, He stated that Hansen asked Dr. Hermann to turn his back and face the wall. He then put his hand on Hermann's head while he himself drew a feather dipped in ink through his mouth. At this moment Dr. Hermann said that he experienced a strong taste of ink, a taste that did not diminish even when eating food at lunch afterwards. However, the sensation of the magnetizer was not recognized as something clairvoyant by the subject for no abstract knowledge of it was communicated. It was a matter of a shared sensory experience. It is doubtful whether those present really took this experiment seriously and it might be considered rather as a

show put on for sceptical professors and students.

The Leipzig physician, Dr. Albert Moll, specialized in the investigation of rapport in the hypnotic state and carried out a systematically arranged series of experiments which even today are still impressive on account of the thorough way in which they were conducted. Dr. Moll, whose outlook was strongly scientific, was unprejudiced enough to investigate the possibility of a telepathic rapport in the hypnotic condition, even though paranormal phenomena found no place in his general view of the world. For this purpose he carried on experiments with magnetized water and magnetized playing-cards, as these had been favoured objects with the old mesmerists. His method of research, however, met the demands that had grown out of knowledge which had been gained in the meantime and excluded many sources of error that had been unrecognized by the old mesmerists. Moll reported that a long series of experiments had been arranged, the aim of which was to ascertain the effects of magnetized objects. He himself had never seen any effect if the person under investigation did not know that the object had been magnetized. He also carried out experiments with magnetized water. For example, someone was invited to choose twelve times in succession one of three glasses. It could be shown that almost every person would choose one glass more frequently than another. In order to exclude this source of error the glass to be magnetized was randomly chosen in a great number of the experiments. In order not to warm the water, the glass was magnetized on the table, but to Moll's astonishment, many positive results were obtained. In spite of many failures, the investigators noticed that very frequently the correct glass was picked out. Of these successes many were obtained in the hypnotic condition and others in the normal state.

In the experiments with cards, one subject asserted that she could recognize the correct card because it felt warmer to the touch, while another said that she felt the card adhere to her hand. In order to prevent warmth being given to the cards through the process of magnetizing them, they were protected under a glass plate when they were being treated. Then a card was drawn at random and the magnetizer was no longer allowed to come into the room. In this case the subjects, with two exceptions, could no longer specify the card (83, pp. 461 ff.).

Moll cannot be blamed for not giving the precise number of successful results, since statistical methods were only to appear later, in the twentieth century. Moreover, he had no wish to bring forward proofs of paranormal phenomena and we may surmise that the surprising number of positive results was rather displeasing to this extremely objective scientist. In the case of the magnetized water it is possible that this was affected by the bodily smell of the magnetizer and therefore became recognizable by the hypnotized person, when drinking, owing to his increased sensibility. In the case of the card experiments under the glass, this possibility could not occur.

In the following example it can be shown how keenly aware Moll was of the power of suggestion as a source of error in parapsychological experiments and how well he was able to deal with it. He gave the mesmerized subject, X, a card, with the remark that it was magnetized and that she must later find it. He had actually magnetized another card, but, without exception, it was the suggested card that was found (op. cit., p. 475). This shows how much a determined opponent of parapsychology can contribute to the advancement of parapsychological knowledge.

LATER EXPERIMENTS IN HYPNOTISM

Towards the end of the century the serious investigation of paranormal faculties as seen in the hypnotic state was the centre of controversy. It was carried on by men whose main interest was in Spiritualism and for that reason it attracted the odium of spiritistic charlatanry. When the Society for Scientific Psychology (Gesellschaft für wissenschaftliche Psychologie) in Munich began to perform parapsychological experiments the police threatened to dissolve it. One cannot blame the authorities for their mistrust of

everything occult, since at that time there was in many places in Germany what could almost be called an outbreak of mass madness (84, II, pp. 153-154). The Society for Scientific Psychology carried out altogether twenty-four hypnotic sittings, with witnesses from the various faculties.

The director of the enquiry, Dr Albert von Notzing, became later well known under the name of Schrenck-Notzing. Like Freud he studied the effects of hypnosis both in Paris and Nancy and later as a young physician he employed hypnotic psychotherapy in Munich. In the years that followed he became one of the leading personalities among German parapsychologists. He was rich, elegant and a man of the world, a man both much admired and much reviled. In carrying through his experiments in his early years Schrenck-Notzing was not sufficiently critical. Passionately and completely convinced himself, he suffered no opposition. A series of distressing failures led him over the years to develop better methods of investigation.

Schrenck-Notzing caused the subject, Lina, seated in an armchair, to fix her gaze on a golden ring and after a few moments she passed into the hypnotic state. The following experiments are taken from his report (85). He states that in all experiments in mental suggestion and the transmission of ideas the witnesses were told to write down their wishes or mental commands immediately before the investigation and in another room or at a distance so far removed from the subject and behind her back that any sensory perception was absolutely excluded. Also, not a word was spoken either by Schrenck-Notzing or by any of the witnesses which might

betray the purpose of the experiment.

In the third experiment, which was carried out at the first sitting, the percipient had to experience pain felt by the hypnotizer. Lina lay sleeping with closed eyes in the armchair, the high back of which prevented her from perceiving anything that was going on behind her. Standing two steps behind her chair, Schrenck-Notzing pricked himself with carbolized needles in various parts of the body in the firm expectation that the subject would complain of pain. To his astonishment she did nothing of the kind. When, acting on knowledge gained during a previous experiment, he tested her sensitivity through pricking, she jumped every time and showed signs of experiencing pain. Her right arm was then mesmerized again by making a few passes at about ten centimetres distance, but without touching it. When she was now pricked on this arm no reaction followed. Further passes over the whole

body also rendered the other parts of the body insensitive. The experiment was now tried again, with Schrenck-Notzing again standing behind the chair. This time she reacted in some degree to every prick that he gave himself with jumping movements, although the transference of sensation hardly ever followed immediately, but usually a second later. Her sensitivity to the pain of the pricks that Schrenck-Notzing gave himself was so sharp that she grasped the sides of the body opposite to those which he had pricked on his own, giving vent to loud expressions of pain and indignantly wishing to rise from her chair.

In the fourth experiment, at the third sitting, the conditions were exactly as in the above experiment, except that Mr. Bayersdorffer pricked Schrenck-Notzing. The same mental trans-

ference of sensation again took place.

In the fifth experiment Schrenck-Notzing again stood two paces behind the back of Lina's chair and silently put a piece of sweet cake, which was on a table behind her, into his mouth. According to the assertion of the witnesses, Lina's face thereupon brightened and she made movements as if chewing and it could clearly be seen through the movements of her tongue and her mouth that she experienced pleasure in the taste that he was enjoying.

In the sixth experiment a mouthful of coffee that was carefully held in the mouth caused the percipent, who just before had been humming a waltz tune, to break off and then to make sipping and gulping movements as if she and not Schrenck-Notzing were drinking the coffee. Her dumb show clearly expressed a feeling of pleasure and at the same time she made efforts to get up from her chair and to go outside, where she suspected the coffee to be.

In the seventh experiment Professor G. Max stroked Schrenck-Notzing's tongue with a brush soaked in turpentine, at which Lina made marked gestures of disgust, expressing her repugnance both in words and by indignantly spitting repeatedly on the floor. She even showed her objection in a way which was unmentionable.

In the eighth experiment Professor Max gave Schrenck-Notzing a cigar which was carefully lighted. The sleeping subject imitated the gestures of the smoker in imagination, putting two fingers to her mouth and blowing out the smoke.¹

In the ninth experiment a little pepper placed on Schrenck-Notzing's tongue excited a violent reaction in the subject as soon

¹ For obvious reasons this experiment does not seem to have been well designed and may throw some light on the nature of the control conditions obtaining during the series.

as he began to experience the sharp taste. Her whole face was distorted and she made preparations for sneezing, putting her handkerchief before her mouth, so that no doubt could exist as to the nature of the sensation she was experiencing. In the tenth experiment fourteen substances in well-closed containers were chosen for the experiment by a chemist, and from these Baron Du Prel selected pure veratrine in powder form. In order to prevent the volatilization of this powder, which was preserved in a narrownecked flask and which furthermore is dissipated in the air with great difficulty, the opening of the phial was firmly pressed under Schrenck-Notzing's nose. Thus any direct effect of the substance on the somnambulist was considered impossible, owing to the considerable distance between her and the operator. As soon as the powder began to have its effect on Schrenck-Notzing the subject coughed vigorously. The operator could not succeed in smothering an audible expression of his feelings, on account of the strength of the substance, and, in spite of all his efforts, he sneezed. subject did so at the same time, coughing vigorously and making a wry face, while at the same time she said, "It tickles so, I can't understand why I can't cough; if you come nearer to me I shall have to cough and that is very bad; this thing is tickling me". During the later waking stage in which Lina, like others, had no memory of what happened in the hypnotic state, she still continued coughing and saying, "I don't know what I have got in my throat, I feel such a tickling there; if I could sneeze I should be very glad, I think I have got a cold ".

In the eleventh experiment oil of peppermint was used, the procedure being the same as in the former experiment. audibly breathed through her nose and (probably still under the influence of the veratrine) said, "This is unpleasant, very unpleasant!" In the twelfth experiment a distillation of strawberries was employed. While the operator held the carefully opened phial under his nose, Lina slowly awoke out of the hypnotic state and although he continued the experiment with the utmost caution while she was in the waking state, she was insensitive to his sensations. After a short pause, she again fell into the hypnotic condition; her glance fell on to a slip of paper while turning over the leaves of a portfolio of coloured maps of Munich which had been placed before her. Her look remained fixed on the word "Omega" which always made her fall back into sleep on account of a suggestion made to her during hypnosis. The book fell from her hands and by her accelerated breathing they recognized the earlier state. The same experiment was then continued. Lina inhaled deeply, even put her finger to her nose and made a wry face as if

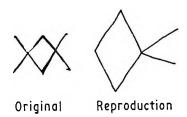
she smelt something unpleasant.

In experiment thirteen, while behind the back of the subject and seated to one side of her, Baron Du Prel wrote down the mental order, "Lina must get up, go up to Mr. Müller senior, pull the handkerchief out of his pocket and put it into the outer breast pocket of Mr. Müller junior". As soon as Schrenck-Notzing had read the order not a word was spoken, as was the case in most of these experiments. After he had seated himself at such a distance from Lina that all bodily contact was excluded and had concentrated his thoughts on this order, Lina stood up and like a blind person began groping through the studio with dragging steps. She went up to Mr. Müller senior, searching around in his coat until she found the pocket and then, slowly drawing the handkerchief out, she went to Mr. Müller junior, again looked for the pocket that she wanted, put her hand inside and reluctantly threw the objects she found inside it on the floor. Then she put the crumpled handkerchief inside the pocket, repeated as if automatically the same thing several times and again made sure that the handkerchief was securely in the pocket. As in this experiment every hint of what she was to do was carefully avoided, the witnesses considered that it gave evidence so convincing that any further similar experiments in the second sitting were unnecessary. Schrenck-Notzing added at this stage another experiment, number fourteen, similar to tests that had been made at the beginning of the series. These mental orders were, with the exception of the three last given below (Nos. 20-22), given by Schrenck-Notzing himself. In this, his mental order ran as follows: "Lina must get up and go to a table on which lie books and papers: she must take up a book thought of by me and push it into a certain pocket of my cloak hanging in the corner of the room opposite". When getting up the subject had to be assisted by Schrenck-Notzing because, in spite of all her efforts, she could not support the weight of her body. Walking forwards with dragging footsteps and turning round the table, she stepped up to it and, after a false move, she took the suggested book and then went slowly with staggering steps up to the cloak and put it into the intended pocket.

In the fifteenth experiment, Schrenck-Notzing writes, the order was as follows: "She must after awaking, I resolved, take out of the five-shelved bookcase entirely filled with volumes, Scherer's Allgemeine Litteraturgeschichte (at first I though of Scherer's Deutsche

Litteraturgeschichte standing close to it, but gave this up in favour of the simpler binding which was less likely to be noted) and read me something on the tenth page ". Awakened by him, she put the book inside the pocket of the cloak into its former position in the bookcase and acting under Schrenck-Notzing's suggestion she drew out, after some searching, the volume of Scherer's Deutsche

FIG.1 (WAKING STATE)



Litteraturgeschichte, turned over some of the leaves and as soon as page ten was turned up asked him if she was to read something from it. At his request she read a few lines and put the book back in its place in order again, then took out Scherer's Allgemeine Litteraturgeschichte and picked out page ten after turning over a few leaves.

In the sixteenth experiment the mental order was as follows: "Lina in the waking state is to reproduce a sketch made by me

FIG. 2 (WAKING STATE)



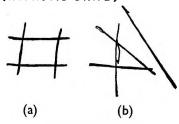
behind her back without any contact between us taking place" (see Fig. 1). In the seventeenth experiment the same conditions as in the sixteenth obtained and again similar drawings resulted (see Fig. 2).

In the eighteenth experiment the order was: "Lina, again in the hypnotic condition, must get up from her chair, go to the

185

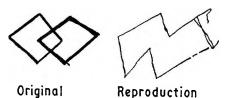
writing-table and sit down before it and then reproduce with a pencil lying there a drawing made by me behind her back". After Schrenck-Notzing had concentrated on this wish, the subject with her hands drew in the air the outline of the drawing and with his help got up from the armchair. She sat down at the desk and copied the drawing with great care, in spite of her eyes being closed. There was no contact (see Fig. 3, a, b).

FIG. 3 (HYPNOTIC STATE)



In the nineteenth experiment Schrenck-Notzing writes: "I wanted to see her do the same thing with another drawing prepared by me under the same control conditions and while she was sitting in her chair. After she had finished the outlines of the sketch she replied to my question, 'What is lacking?' by the words 'a quadrangle which fits in' (see Fig. 4).

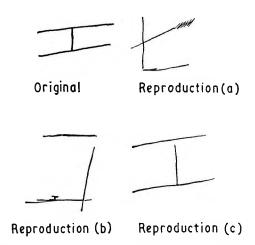
FIG.4 (HYPNOTIC STATE)



The twentieth experiment was carried out late one evening in the presence of Mr. Grote. While the subject was deep in the lethargic stage of the hypnotic condition he made a simple drawing behind her back, wishing Schrenck-Notzing to compel her to reproduce it paranormally and without any contact, through pure concentration of thought. This partially succeeded after three attempts (see Fig. 5, a, b and c).

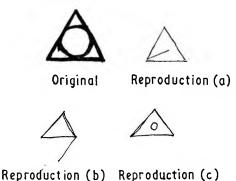
On 5 July 1887, the drawing tests were repeated in the presence of the painter, Mr. Albert Keller, his wife and Mr. Alois Müller.

FIG. 5 (HYPNOTIC STATE)



In the twenty-first experiment the order ran as follows: "In her waking condition, Lina, while I am sitting behind her back, is to repeat a drawing made by Mr. Keller in another room and handed

FIG. 6 (WAKING STATE)



to me. The repetition to be made apart from the ordinary channels of sense " (see Fig. 6, a, b and c).

In the twenty-second experiment a repetition of this test was made with another drawing. Lina copied the desired sketch in a somewhat altered and inaccurate form (see Fig. 7), (85, pp. 6 ff.).

During these experiments the philosopher, Carl Du Prel, was also usually present. He was one of the most gifted exponents of Spiritualism and as Director of the Society for Scientific Psychology he was acutely concerned to make conditions that would give the experiments evidential value. He maintained (86) that the subject might simulate the hypnotic condition or try to guess the order given. The first could be ascertained by taking the pulse and the second by presenting as odd and complicated drawings as possible. Protection was completely afforded against obvious fraud by the hypnotizer if he was responsible only for the transference of the order and not for the choice of its contents. In the experiments at

FIG.7 (WAKING STATE)





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which he was present the choice was usually left to him. Since he might have been able to arrange the programme with Lina, he frequently went with a witness who was present for the first time into the next room where he received from him the instructions which he wrote down and brought back into the sitting-room. said that Professor Preyer could now only raise the objection that all those present had arranged the affair amongst themselves so he asked Preyer to take part in their experiments but he prudently did not accept. Du Prel stated that in the experiments the conditions remained essentially the same. The hypnotizer sat on a chair and Lina in a comfortable armchair. Du Prel sat at his desk which stood by itself some distance off. From this position he was able to observe everything accurately (86, pp. 7-8). Du Prel added that the experiments described above could have been designed with greater exactitude but that they were the first that he had attempted. He thought that psychological experiments would never attain the degree of exactitude that prevailed among those in the natural sciences, but, he continued, what had been described above was quite sufficient to render untenable Preyer's explanation of thought-reading. Were he to repeat exactly the same experiments with contact, then he would himself find that mistakes would occur in

a person skilled in muscle-reading (op. cit., p. 50).

In these experiments we may consider that fraud, through secret agreement, was as good as excluded, thanks to Du Prel's security precautions, unless we impute fraudulent intentions to Du Prel himself. The possibility of deception through muscle-reading also cannot be maintained, but not the possibility of unconscious mimicry. Perhaps Lina could see in a glass what was going on behind her armchair. Impressive as the experiments are, they would have been still more impressive if the hypnotizer or person giving the order had remained invisible to Lina and to those observing her and had stayed in the neighbouring room, or at least behind the curtain. The transference of sensitivity under hypnosis

was demonstrated satisfactorily only in later experiments.

In the thirty-third sitting there occurred, to the experimenters' astonishment, a kind of spontaneous clairvoyance or abnormal transference of the senses, probably elicited through systematic hypnotic training. In this case, as soon as Lina had passed into the deeper stages of hypnosis, the function of the eye was transferred to that part of the scalp which corresponds to the fontanelle anterior, that is the sagittal furrow and the coronal suture. The experiments were thus arranged. After Lina had fallen into the hypnotic state and usually into the lethargic stage, she was verbally ordered to allow her eyes to be bandaged or to keep them shut and then to read with her scalp. Two of those whom it was desired to convince bandaged or covered both her eyes with a thick cloth which they themselves provided and during the whole experiment, kneeling or standing next to her, took care that no shifting of the cloth took place and that peering out of it was impossible. After such strict conditions for the exclusion of light had been met the subject was given a book, previously hidden, which was provided by one of the witnesses and the contents of which had to be unknown to all present so as to exclude thought-transference. Following the suggestion given her, she laid the book, opening a page at random, on the top of her head (one could turn over the leaves with the book in this position) and began to read the words which happened to be just over the sensitive place on the scalp, pulling the book slowly back and Her whole body was seized in convulsive movements of different intensity such as clonic cramps. She began to utter heavy

and at times painful groans and slowly pronounced the syllables as she read them, one of those present noting them down. She was usually tired after reading a line, the book falling from her hands and she herself breathing heavily and sinking back into the chair (87, p. 387). To exclude the possibility of the writing being deciphered through hyperaesthesia of the tactile cells, photographs of what was to be read were also laid on the head of the subject. This possibility had to be considered definitely ruled out, as in spite of the flat surface she succeeded as well as in the earlier tests. Since the writing had been photographed by a member of the Society especially for this purpose and kept in a sealed envelope by one of the witnesses until the critical moment, none of the participants knowing the contents, there was no possibility that chance coincidence or failure in observation led to the success of the experiment. The assumption that light rays were necessary for this unusual kind of perception was not proved conclusively, for although the majority of cases were seeing through contact with the skin, there was one case of reading in absolute darkness (op. cit., p. 388).

If we compare these experimental reports with the naïve experiments of the earlier mesmerists, progress in two respects can be observed. On the one hand, the main possibilities of deception in somnambulism were by now known and, on the other, they show the influence of experimental psychology in the design of experiments. Even if these experiments are not conclusive, nevertheless they are the beginning of a development that led directly to the proof of paranormal manifestations through the technical refinements of the twentieth century.¹

Apart from his telepathic-hypnotic experiments in connection with the Society for Scientific Psychology, Schrenck-Notzing carried out some on his own account. In the way he designed his

experiments he was not at first sufficiently critical.

Experiment 1. The percipient, Miss Steinmetz, sat in an old-fashioned German armchair, with broad, straight arms. By means

¹ An account of some of these experiments was read by Dr. A. T. Myers at a meeting of the Society for Psychical Research in 1888 and interest in them was enhanced since some time previously Professor and Mrs. Sidgwick had been invited to Munich and, accompanied by Dr. A. T. Myers, went to see Lina and Schrenck-Notzing, who was to act as agent. Unfortunately, however, Lina was ill and developed inflammation of the lungs. They waited for five days in Munich for her to recover, but she remained confined to bed and the visitors from England saw none of the remarkable phenomena reported by their host (Journal, S.P.R., May 1888, III, pp. 262-263).

of mesmeric passes Schrenck-Notzing put her in a cataleptic condition, the onset of which was shown by loss of any reaction when pricked with a needle and by rigidity of the limbs when placed in any position. When this condition had come on and been tested, Schrenck-Notzing said that, while observing all precautions, he secretly came to an agreement on the mental order with Mr. Neidemeyer who was not to fix his eyes on the object, at Schrenck-Notzing's special Standing a few steps away from the percipient, Schrenck Notzing concentrated his thoughts firmly on the mental order, dividing this again in his mind into its parts. Firstly, she had to take her comb from her hair and hand it over to him. Next he compelled her to raise her right hand to the height of her head and then he concentrated on willing her to take the comb and finally to lower her arm and hand over the object to him. This happened slowly but surely over a period of a few seconds. The movements of the arms showed precisely the same tremulous backward and forward movements usually seen in cataleptic subjects when under hypnosis. After carrying out a part of each order the percipient paused slightly, as if she needed time to assimilate the new mental order.

Experiment 2. Similar conditions and procedure. The percipient had to take, draw out and hand over to Schrenck-Notzing a thin paper-covered book which, adopting all precautions, the experimenters had chosen and which stood between other volumes and was not at all obvious in a wide and full bookcase with four shelves. This order was also carried out, as slowly but at the same time as correctly as the others. The cataleptic percipient, with backward movements of her hands, laid them slowly on the arms of the chair in order to raise herself, which obviously cost her a great effort. Then, swaying, she took some short steps, putting one foot forward and then trailing the other after it. Approaching the bookcase she again raised her arm with faltering movements and began to look for the book. First of all she felt around in a position which, vertically correct, was actually in a lower shelf. Schrenck-Notzing concentrated his attention on the arm, willing it to rise and directing the searching hand until the correct book was taken (88, pp. 179-180).

Even if the design of this experiment is unsystematic and unconvincing, nevertheless there is some interest in the clearly described observation of behaviour in these experiments. On the other hand, in later experiments the design of the test hardly leaves any more room for conscious or unconscious deception of the operator

by the hypnotized subject.

Taking part in the following experiments were two well known men who were known to Schrenck-Notzing and who beforehand assured him that they would assist his test as conscientiously as possible. Mr. Spiro, a medical student, was percipient, while Dr. Grote chose each time the mental order to be transmitted by Schrenck-Notzing.

The general procedure of the experiments was as follows. The percipient first had his eyes carefully bandaged with a large linear handkerchief and then was placed facing the door, with his back both to the experimenters and to the room. Dr. Grote, sitting opposite to him in an armchair at the side of the room, was able accurately to observe all movements made by the percipient and was told most seriously to avoid any interference that might disturb the course of the experiment. Before every experiment in mental suggestion it was agreed between Dr. Grote and Schrenck-Notzing that the latter should either touch or clearly indicate to Grote the object that was to be found. Since their arrangement took place without words and without noise any possibility of communication through one of the bodily senses seemed excluded. At the beginning of one experiment of this kind Schrenck-Notzing turned the percipient around so that now he faced the room and he himself stood a half pace behind him and held his right hand some twenty to thirty centimetres above the percipient's head. In this position Schrenck-Notzing followed him in whatever he wanted to do and through the concentration of his thoughts tried to influence the percipient to find the given object. During the first experiment Schrenck-Notzing touched Mr. Spiro's left wrist with the thumb of his right hand in order to test his sensitivity, about which he was still not certain (89, pp. 13-14). Nine other experiments followed without physical contact.

If we consider that what we have here is an experiment in touch in a field that has hardly been investigated, then these experiments are impressive. In the design of the experiments, fraud would be possible only if there were either a plot or an unusual skill in conjuring methods. The one is as improbable as the other, since Dr. Grote and Mr. Spiro had never previously taken part in any such experiments.

A later series of tests with Miss C. M. are also worthy of note. The experiments here reported took place on the evening of 19 March 1887 in the studio of Dr. Sch. The subject for the experiment was a young middle-class lady. She sat for the first part of the experiment in a low armchair, from which it was not possible

to rise without some exertion. Beside the right arm of the chair stood a large, oval table, on which were various objects, such as paint brushes, charcoal pencils, boxes, photographs, newspapers and books. Behind this table and sideways from the armchair stood a sofa which, however, could not be seen by a person sitting in the chair without completely turning the head. Here Dr. Sch took up his position while Schrenck-Notzing sat on a chair opposite to the percipient but at such a distance that no contact took place.

The following procedure was now carried out in the individual experiments. Dr. Sch. himself proposed all the mental orders with one exception and wrote every time what he wanted on a pad belonging to him. He did this so carefully that it was absolutely impossible for the percipient to see what he was doing, or also to gather anything from the movements of the pencil, even if she had not been in the lethargic condition. Schrenck-Notzing then read the wish but carefully avoided any movement with the pad that might have allowed the percipient to see the words on the card.

In the first experiment Dr. Sch. then informed Schrenck-Notzing, in the way described above, that he wanted the sleeping subject to indicate with her right hand a framed picture that stood on the table. Without touching the percipient, Schrenck-Notzing endeavoured to transfer this wish to her by means of strong mental concentration. However, before this first experiment, as well as before all others, he ordered her in clearly expressed words to make herself open to his thoughts and then to carry out the order he transferred. After a short pause she raised her right arm, overcoming the weight of the limb with obvious difficulty. She then clung to the table, probably as a means of support, without however taking hold of any of the objects lying there and then, raising her arm, repeatedly pointed with her right forefinger to the desired After this experiment Schrenck-Notzing asked Dr. Sch. if he was satisfied with what had been done, as otherwise, if necessary, he would continue the transference. After this, as in all the experiments that followed, Dr. Sch. expressed himself satisfied with the execution of the orders (90, p. 384).

After this, there was a further series of successful telepathic-hypnotic experiments. For example, the subject had to pull out one of five horn combs from her hair with her left hand, then she had to drink out of the beer glass of the operator and thereupon put it on the floor, and more experiments of a similar kind. Schrenck-Notzing summed up the experiments by stating that they

had convinced Dr. Sch. of the possibility of telepathic thought-transference, thereby fulfilling their aim.

The characteristic features of spiritism, such as automatic writing, table-tipping and table-rapping, had already been seen in a few cases of mesmerism. With the triumphal progress of spiritism through Europe these phenomena suddenly became more wide-spread and more and more there was discussion about spiritistic mediums. Little difference between mediums and somnambules can be established, just as is the case between somnambules and hypnotized subjects. Such differences as existed were apparently manifested only in the degree of the narrowing of consciousness and in the form of the phenomena presented, together with the fact that the mesmeric condition was induced by an operator, while in the case of the mediums it was usually self-induced.

If this be so then similar results would be attained by the different methods. This hypothesis rests on the similarity which is immediately apparent in any study of contemporary reports. The forms of the phenomena shown by somnambules, hypnotized subjects and mediums were dependent on their public. With their increased power of sensibility, the somnambules, mediums and hypnotized subjects specialized in those genuine or fraudulent paranormal phenomena in which their public showed the greatest interest. Only purely telepathic phenomena were obtained in a light narrowing of consciousness, while telekinetic phenomena appeared generally only in deep trance. The phenomena taken as a whole were especially apparent with hysterical or hysterically inclined persons. A description of spiritistic experiments must be omitted here as being outside our terms of reference.

CONCLUDING OBSERVATIONS

As was to be expected, we could discover in the magnetic literature of the nineteenth century, as far as it could be obtained and was available, no single experiment that could be considered of great evidential value. The proof of the existence of paranormal phenomena, in Germany at least, had to await the men of the twentieth century. The material that we have collected must serve merely as the preservation of observations which in some measure may have been trustworthy. In addition, it may perhaps serve to mirror a sample of the development of thought among investigators in this field. Many thousand pages of magnetic

literature have been scrutinized. The material consists partly of deficient theories and partly of ingenious theories which, however, today have lost their validity. A further part consists of the embittered strife amongst the theoreticians themselves. What remains are a few experiments devised by sceptics for the benefit of sceptics.

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ABBREVIATIONS EMPLOYED

- ATM Archiv für den Thierischen Magnetismus. Altenburg und Leipzig, 1817-1824.
- M Magikon. Stuttgart, 1840-1853.
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Hypnotism in Scandinavia

by ERIK BJELFVENSTAM

Translated from the Swedish by
J. LAURENCE WOOD

Introduction

In Scandinavia interest in mesmerism was never so great as in other parts of Europe. It is true that the influence of Swedenborg's teachings was considerable, but he himself never took much interest in the hypnotic phenomena as observed before Mesmer and his teaching tended rather towards Spiritualism than to anything else. Scientific interest in the subject, at any rate in Sweden, was aroused by the opinions of Berzelius who, although very critical, was open minded and quite willing to examine the evidence and discuss it. In Norway and Denmark little scientific work was done and few, if any, experiments of any value were reported.

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Hypnotism in Scandinavia 1800—1900

EXPERIMENTS IN SWEDEN

In the Scandinavian countries Sweden was noteworthy for the early interest in mesmerism which was sustained by those who had some connections with various magnetic societies such as the Harmonic Society in Strassburg which had a membership of some hundred and fifty supporters. The Exegetical and Philanthropic Society (Exegetiska och philantropiska Sällskapet) in Stockholm was founded in 1786 by the brothers C. F. and A. Nordensköld and Mr. C. B. Wadström, but some of its activities, especially its connections with mesmerism, which had been fostered by Baron Silfverhielm, led to its dissolution towards 1789. The mesmeric experiments were in part much more inclined towards what was later known as Spiritualism than the ordinary sittings for mesmeric phenomena. Much attention was paid to the diagnosis and treatment of illness, but physical maladies were considered to be due to the supposed "spirits" of disease and these had to be ejected from the sufferer, the somnambules being controlled by spirits who spoke through them, giving advice and offering treatment. letter to Mr. Mouilleseaux, an official of the Strassburg society, Mr. Johan G. Halldin (1737-1825), outlined the principles of the Stockholm society and pointed out how the Swedish organization heartily agreed with their friends in Strassburg especially as regards their view that mesmerism must be used only to do good and not to satisfy curiosity regarding its unusual phenomena.

With the collapse of the Swedish Society mesmerism suffered an eclipse. Pehr Gustaf Cederschjöld (1782–1848) was as far as we can tell the first man to practise mesmerism openly in Sweden in the nineteenth century. He was born in 1782 and studied medicine at the University of Lund. He presented his thesis for the degree of doctor of medicine in 1808 and a few years later became

prosector in the university. In 1813 he moved to Stockholm and set up in private practice with midwifery as his speciality. Four years later he became supernumerary professor, and five years after that full professor of obstetrics in the Karolinska Institute, the Stockholm medical school. As holder of this chair he was also director of the General Lying-in Hospital.

It was principally during the years of private practice that he took an interest in animal magnetism. Some years earlier he had become acquainted with this "treatment". On a visit to Copenhagen in 1811 for purposes of study he came into close touch with the eminent Danish physicist H. C. Ørsted (1777–1851), discoverer of electro-magnetism. Ørsted was a man of many parts: he was also a physician and at that time he was treating a sick child by mesmerism, so that he was able to give Cederschjöld practical instruction in "magnetic manipulation". But it was not until 1814 that Cederschjöld began to use the knowledge he had gained in Denmark.

In the autumn of 1816 Cederschjöld set out on a trip to Germany at Charles XIII's expense to study animal magnetism. He stayed there for two and a half months, most of the time in Berlin with Mesmer's disciple, Professor Carl Wolfart. On the way back from Germany Cederschjöld broke his journey in Copenhagen, and called on several people, amongst them the court physician, J. D. Brandis (1762–1845), who about that time was beginning to use mesmerism in his practice.

Cederschjöld's account of his journey, which he published in his Journal for Animal Magnetism (1), leaves a strong impression that the author had soon become very critical of what he saw of Wolfart and other mesmerists in Berlin, and by no means accepted what they and their patients reported of miraculous cures. Clearly he took great pains to establish how far, and in what fields, mesmerism was an effective form of treatment. "Although what I saw of it", he wrote, "by no means persuaded me of the value of this kind of treatment, I should not go so far as to deny that it could be useful; but I think it deserves to be tested and checked by careful experiment.... I have found no cause to change my opinion that mesmerism should only be used in those illnesses which there is no reasonable hope of curing by more positive methods, at least until we know much more about the way it works."

Cederschjöld does not appear to have come across any parapsychological phenomena in the course of his travels. Certainly nothing of the kind is mentioned in his account. The report that he presented to the king was followed by a recommendation that a committee should be set up to study mesmerism. A committee was indeed appointed in 1817, and its members were some of the country's leading doctors and scientists, among them J. J. Berzelius. Apparently they all attended one or more of Cederschjöld's mesmeric sessions, but their interest in the question they were supposed to report on was manifestly small, since the committee never met.

In the meantime Cederschjöld continued to make use of mesmerism in his treatment of patients. He reports some of the cases in his Journal. Many of them are of purely medical interest and need not be mentioned here. Of the other cases I shall leave out one which fills the whole of the last issue of the Journal. In 137 pages Cederschjöld has given us a detailed account of a case in which he was the victim of gross deceit on the part of the patient. In this connection it may be emphasized that Cederschjöld has no hesitation in admitting that in some of his cases mesmerism was of little or no use; an admission which seems to provide good evidence of his scientific probity.

Only four of the cases reported in Cederschjöld's *Journal* are of interest from the point of view of parapsychology, and two of those to a very limited extent. Here I shall only give an account of the

case of Miss N., which I find the most interesting (2).

Miss N. was the first patient Cederschjöld treated by mesmerism. She was 20 years old and belonged to a good middle-class family. She is described by her doctor as reserved, taciturn and uncommunicative, but also sensitive; she was enthusiastic and indefatigable in carrying out a project. In these circumstances her limited physical energy was seconded by a tense spiritual force. Her otherwise rather weak character had a vein of obstinacy. When she first came to Cederschjöld as a patient she had been suffering for some years from "persistent stitch and pain deep down in the left side of the chest, with consequent occasional pain in the shoulder and arm". Apart from this she suffered from hoarseness, a feeling of pressure in the chest and a troublesome cough, together with other complaints probably less painful.

There is one item in Miss N.'s history which seems especially interesting to us. It appears that the pain in her chest at times got worse in the spring and autumn, often to such an extent that she fell into a "kind of natural somnambulistic trance", in which the symptoms disappeared. In this trance state, which might last for about twenty-four hours, the patient was seized by severe spasms;

she always lay with her eyes shut; nevertheless "either by touch, or at a distance, by some kind of instinct, she was able to distinguish and recognize accurately people who were about her".

She could only put up with one certain person on these occasions. If that person touched her, or even came near, it gave her the greatest pleasure and to all appearances had a beneficial effect on her symptoms. But if someone else approached her she would be perturbed and impatiently try to repulse them, as if they gave her pain.

In this account we can see a certain disposition to "mesmeric sleep", as well as the "super-sensitivity" which often accompanies mesmeric states. It seems not unlikely that this was a case of some kind of autosomnambulism.

What is particularly interesting in Cederschjöld's comprehensive report on Miss N. is the description of paranormal phenomena which are often said to be met with in mesmerized persons. For example, she was able to describe the seat of pain in her chest. At first she could only say with tears and sobs that it was horrible. A few days later, in a much calmer way, she brought her attention to this point again, and said that there was a lesion in the lung and that it could only be healed by mesmerism.

Cederschjöld relates that Miss N. took great pleasure in this mesmeric sleep, regularly asked him to delay waking her, and tried in every way to prevent his waking her. Even when he mesmerized her from some distance she always seemed to know where his hands were and seized them so as to force them from above and down. She always found his hands with so much certainty that one had to believe, says Cederschjöld, that she really saw them, which she said was the case.

Miss N.'s power to read without the help of her eyes seems to have been highly developed. Cederschjöld made a number of experiments which are of interest, although the experimental conditions do not satisfy the requirements we should insist on today. In any case the reports on the organization of his experiments are incomplete.

It was quite by chance that Cederschjöld discovered the patient's powers in this direction. He handed her a copper coin which she examined very closely. When he asked her what the coin's value was, and what was the date on it, she answered, obviously a little annoyed by his silly question, that it was a $\frac{1}{4}$ skilling-banko. She refused to tell him the date, but in a way

¹ A tiny copper coin worth a fraction of an English farthing and probably smaller than the American dime.

which showed clearly that she knew very well what it was. Only when Cederschjöld threatened to wake her did she take the coin and hold it in front of her tightly closed eyes. But where she was lying it was so dark that even with her eyes open she could not have made out anything at all on the coin. She had recourse therefore to touch: she felt the coin, scraped her nail across it once and immediately said "1802". On examination her answer was found to be correct.

Cederschjöld now gave her a note and asked her to say what it was. She unfolded it, spread it out beside her on the sofa with the printed side up and the letters the right way up. She then ran her fingers over the upper part of the note till she reached the point where the value was printed and said right away that it was a two riksdaler note. Asked if it was a treasury or a bank-note she ran her fingers over it again and answered "Treasury note", which was correct. Cederschjöld then wanted to know the date of the note. First she refused to answer the question, but eventually gave in, ran her hand over the note, put her finger on the place where the date was, and answered without hesitation "1813", which again was correct.

As this account shows, the author's description of the conditions of the experiment is so summary that it is impossible to form a clear opinion of Miss N.'s performance. If one can exclude trickery, and the possibility that the subject could see in the ordinary way, the most likely explanation would appear to be telepathy or

mental suggestion.

Cederschjöld makes it clear that after repeated experiments he became convinced of Miss N.'s capacity to read figures with her fingers, and he now wished to find out whether she could distinguish the letters of the alphabet and thus read books with her He gave her a novel, which she held at the normal reading distance, in the darkened corner where she lay, and read out long passages very quietly and without expression. From time to time she would hold the book for a moment in such a way that she seemed to be supplementing sight by touch. In this way she even managed to read the fine type in which the book's footnotes were printed. It seemed as if she saw through her eyelids, but she had to have some light, no matter how little. In complete darkness, according to her own statement, she could not, at this period, see a thing. Cederschjöld soon noticed that his patient did not always hold the book before her eyes but rather in front of her chest, and often went on reading although her face was turned in an entirely different direction. Cederschjöld gradually became convinced that "that kind of sight" did not depend on the use of the eyes. Miss N. herself declared that without using her eyes she could see everything quite clearly, although how this came about she could not explain or understand. Later, however, when she became more familiar with this new ability she began to give more information about it. At first she had no idea what part of her body was endowed with sight. Then, after saying first that she saw with her chest, she said it was with her heart, and finally changed it to the area round the heart, or more exactly the pit of the belly.

Cederschjöld had difficulty in believing the phenomena he observed. He was convinced that he would find a perfectly natural explanation of them. Possibly his patient was seeing by an imperceptible opening of the eyelids. So in order to check this supposition he bandaged her eyes with a large cotton cloth, wound several times round her head, and pulled down over her nose. To be doubly sure he turned her head sideways. None of this hindered her reading in the least. She read with equal ease if the book were laid on her belly or over the several thicknesses of clothing which

covered the patient up to her chin.

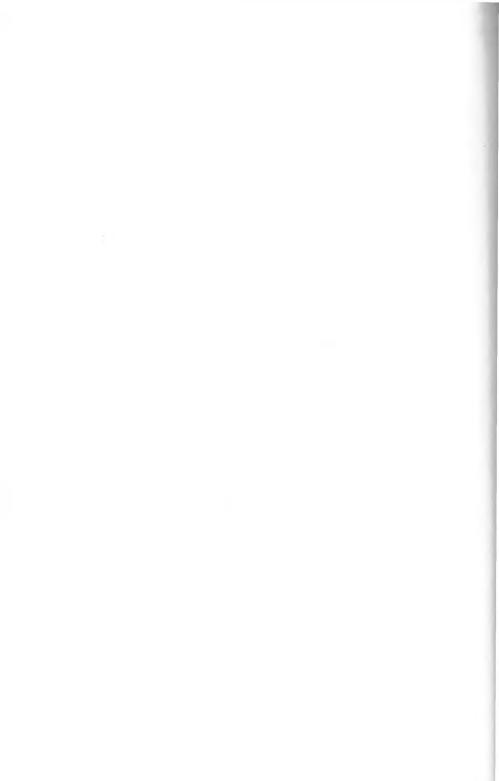
To make sure that she had not learnt the passages by heart Cederschjöld persuaded his patient to read from different parts of the book. When she passed this test also there remained the possibility that she had memorized the whole book, and that by counting pages she was able to work out what the contents of a particular page were; but Cederschjöld had already decided this was very unlikely. However to satisfy himself completely about her powers he wished to find out whether she could also read books selected by him. With a good deal of trouble he persuaded her to co-operate in his experiment. "But when I was successful again", wrote Cederschjöld, "and she passed this test equally satisfactorily, I was forced to throw rationalism overboard and cease doubting what I saw with my own eyes."

Miss N.'s powers are illustrated in more detail by the observations Cederschjöld recorded during the experiment. Amongst other remarks he says that he could tell, merely by the way she read and the intonation, that she was not reciting from memory. She hesitated over words which were unfamiliar and repeated them several times till she could pronounce them to her own satisfaction. Whilst reading she had to make a considerable effort, which he thought would not be called for in reciting from memory. It is worthy of note that the patient's hands and feet were ice-cold and



Jöns Jakob Berzelius

By courtesy of Svenska Porträttarkivet, Nationalmuseum, Stockholm



her whole body trembled during the experiment; moreover her cough was very troublesome. She asked him therefore in future to let her "sleep" for an hour in peace and quiet before the sessions. In those circumstances she was able to read with less effort, and it was easier to wake her afterwards.

Miss N.'s gift of reading without the help of her eyes seems to have been subject to the regular law of improvement by practice. At any rate it developed little by little and became more and more perfect. She became more and more independent of light when she was reading. In a room where there was no light and both doors and shutters were completely closed she could still read as easily as she could when awake in broad daylight. Sometimes Cederschjöld held the book and the subject's hands and found that she no longer had to touch the book to help her reading. In general she appears to have held the book at a distance of 20–30 cm.

A circumstance which might arouse suspicion of fraud on Miss N.'s part is that it was well-nigh impossible to get her to read from books chosen by Cederschjöld, or to read passages chosen by him. This suspicion can however be dismissed in view of certain facts reported by Cederschjöld which are clearly favourable to the subject of his experiments. He succeeded in getting her to read from four or five different books and from different places in each. In one of the books there were Latin words which made her hesitate for a long time before she could pronounce them. On one occasion she read a passage from an encyclopaedia of music in which there were a number of abbreviations and technical terms. She complained that she could not understand what she was reading, but it was established that she was reading word for word what was printed in the book.

She read the title of every book put in front of her; some books she refused to read because the type was too small, some she turned down because the contents did not interest her. In considering her performance we must remember that she invariably operated in complete darkness, in fact it even seemed that any outside light interfered with her "belly sight". For this reason she demanded that the room should be in complete darkness when she was to read, otherwise she could not see properly.

Miss N.'s capacity to read in the dark was not always the same: in general the longer she could sleep undisturbed, the better she could read. She made the singular statement that light emanated from her own body. Sometimes only a small area of her midriff gave light, sometimes the whole of the abdomen. Usually the light

appeared when she had slept for half or three-quarters of an hour, but its strength was controllable at her will.

Reading always required considerable effort. It was preceded by a preparatory period during which her body grew as cold as marble and trembled convulsively as though in a fit of ague. At the same time the pain in her chest grew worse, and so did her spasmodic cough. Often these troubles could only be controlled by a further half hour of undisturbed sleep or by her doctor placing his hand over the seat of the trouble. According to the patient the partly healed lesion in the lung was opened by these sessions, and she therefore earnestly begged Cederschjöld to pester her as little as possible with reading. It is characteristic of him that because of the distress the sessions caused to the patient, he did not think he was "justified in carrying out any more of these painful experiments than were absolutely necessary to remove the last doubts about such miracles of nature".

Cederschjöld relates that once his patient was able to rest after a reading session she usually lay for some time in a deep, natural sleep. She would then appear to wake and go again into a more complete somnambulistic state. The change she underwent was so peculiar that it should be described in his own words: "At one time her features took on a most animated expression of illuminating all the perfection of her soul and heart. You felt you saw a reflection of supernatural light, and every fibre seemed to express the liveliest imagination and the noblest of sentiments. She would sometimes begin a conversation with some of her absent friends; she either talked and answered, or paused for a while and listened to the others' answers. Sometimes she would go over past experiences and discuss them. Then she would speak without interruption, very rapidly and in the most expressive way. She seemed to lay bare her soul and speak freely about everything that was closest to her heart; and it was all so good and so noble that you almost thought it was an angel talking, sent down from heaven to reconcile humanity with its adversaries."

When one reads Cederschjöld's account of his experiences with Miss N. it is difficult to refrain from the banal reflection that the inner life of man is clearly infinitely more complicated than anyone imagines. To point out only one peculiar feature—what is the intermediate link between the subject's reading without using her eyes, and the more or less ecstatic state which has just been described?

Cederschjöld's first reports on the successful results of his treat-

ment of certain patients by mesmerism seem to have aroused great interest. The first issue of his Journal was the subject of reviews in the daily press, some favourable and some highly critical. In Allmānna Journalen of 16 June 1815 a reviewer wrote, "... it shows a lack of acumen and sagacity that a doctor could make young ladies, in a somnambulistic state, read with their fingers, see with their bellies, look inwards into their own bodies and describe in detail the anatomy of brain or eye, without considering how far self-deception might have a part in his hasty evaluation—for although no one will suggest that the learned doctor secretly provided the young persons with descriptions of the anatomy of the brain or the eye, the public is not informed whether proper enquiry was made into how far the subjects might have had previous instruction from books or from other people, about which they kept quiet, through either timidity or forgetfulness".

The reader will be interested to hear what Jöns Jacob Berzelius, Sweden's foremost scientist in that period, thought of Cederschjöld

and his activities.

In 1815, at the Sundhetscollegium (College of Hygiene), Sweden's highest medical body at that time, Berzelius made a statement on the qualifications required for the vacant post of professor of medicine which was to be advertized. Cederschjöld was amongst those who were expected to apply for the chair. What Berzelius had to say about him, without actually naming him, gives a very clear idea of the unfavourable attitude which the great chemist took towards mesmerism and mesmerists. He said of Cederschjöld that "his head is full of frothy ideas which he tries to impart with fantastic persistence to those they concern as well as those they do not. As a result of this behaviour his name is on every man's lips, he is regarded by many as a fool and a mountebank rather than a man of skill, and it is questionable how far he inspires confidence as a practising physician. . . ." (3)

It may be added, in passing, that Berzelius's harsh judgment on Cederschjöld, which was clearly prompted by the latter's use of mesmerism, was regarded in some quarters as unjust. Even one of the rival candidates for the professorial chair had nothing but praise for him. As we shall see later, Berzelius, in spite of all this,

took a considerable interest in mesmerism.

After Berzelius, Carl Adolph Agardh (1785–1859) took the leading place amongst Swedish natural scientists in the first half of the nineteenth century. Agardh, who is regarded as the founder

of modern algology, was a keen partisan of Schelling's theories. It was natural therefore that he should be interested in mesmerism. So far as I know, however, only one text from Agardh's hand bears witness to this interest. In the *Archiv für thierischen Magnetismus* (4) he published in 1822 an account of a remarkable case of automesmerism which he had had to do with five years before.

Agardh relates that around Christmas 1817 an epidemic of typhus raged in Halmstad, a town in south-west Sweden. Three members of the family of a respectable official contracted the illness, the worst case being the 15-year-old son. After six weeks his fever had abated considerably, but he was then attacked by pleurisy, accompanied by severe convulsions. His doctor prescribed bloodletting, after which both pleurisy and convulsions disappeared, but in their place there began a long period of fainting fits. These attacks came on him particularly in the morning and about four The condition differed in character from o'clock in the afternoon. ordinary fainting fits: his whole body grew cold and stiff, pulse and breathing stopped almost completely. Some kind of catalepsy was involved. The further history of the case was recorded by his tutor, but since he had no medical training he could not of course describe the boy's illness in clinical terms; but his account is reliable and confines itself strictly to the facts.

When the patient came round after an attack he was so exhausted that he could not speak. Moreover he was very confused: when he tried to talk he made a noise like a cackling goose. The doctor ordered tonics. Appetite returned and with it his strength. Gradually he was able to leave his sickbed. But as he grew physically stronger the fainting fits increased in length and frequency. His tutor surmised that his condition was of a "magnetic" nature, an opinion which the boy's doctor at first found laughable. However he decided to put the patient to a test. In one of these fits he asked the boy how he felt. The answer was "So-so". After another question the boy discussed how long his sleep-state would last. Then the doctor laid a book on the boy's chest: he named the book's title and described its content. With his eyes closed he was able to read a folded letter. Further, he was able to foresee the symptoms of his illness; thus showing all the well-known phenomena which regularly appear in the somnambulistic state. Some examples of the patient's clairvoyant powers were quite remarkable. One day he was asked why he was laughing, and after a lot of persuasion he said that one of the ladies present was wearing a ring which contained a secret. The ring was examined, and showed

nothing remarkable. The patient then explained that the ring consisted of two pieces. The owner confirmed that this was so and that the date of her betrothal was engraved on the inner ring. On another occasion he announced to a young woman who was a relation, that she was pregnant, a fact of which she was unaware.

His tutor often addressed the boy in Latin and he replied in the same language, even more lucidly than in Swedish, despite the fact that he was never particularly well-versed in Latin. French, on the other hand, gave him a good deal of difficulty, although he had studied it just as long as Latin. The most curious fact was that he spoke English fluently and correctly with a woman relative, although he had never studied the language and, according to his tutor, did not know a word of it. This lady was very much impressed by the performance, so impressed in fact that she was convinced it was the work of the devil!

When the patient was asked about supernatural matters he replied that he was forbidden to speak of them. He gave confused and contradictory directions about his illness, and the medicines

he recommended were without perceptible effect.

The boy's mesmeric sleep was calm, but his awakening was accompanied by violent convulsions. When they were over he sat up suddenly with every appearance of rage or madness. He tried to speak but could not, and seized a pen instead. What he wrote was confused and dealt with murder and similar gloomy matters. When it was possible to fix his attention on something else he would return to full consciousness with a sigh, and from that moment had no recollection of what had happened.

After three months some improvement began. His awakening from the mesmeric state grew less violent. With closed eyes he walked up and down in the room, but faster than he would in a waking state. If anyone addressed him he stopped dead and repeated whatever was said to him. Any written matter that was given to him he read without difficulty, either placing it against

his chest or following the lines with the tips of his fingers.

A month later his fainting fits returned. For the first time he was mesmerized by a doctor. (It should be made clear that up till then all the manifestations mentioned were the direct consequence of his illness.) He was delighted with the treatment he was now receiving and whilst under mesmerism he described his condition as extremely pleasant. His powers of clairvoyance now developed appreciably, and he became more sensitive to everything he disliked, for example some smells, and people he did not care

for. Similarly he now showed a great sensitivity to metals. Gold affected him favourably, silver was indifferent, but iron occasioned him violent pains. Fur and silk too had an influence, apparently similar to that of iron.

We may add that after nine months of illness the boy had practically recovered. A year later he fell ill again, with something like a stroke, and at the time the account was written, little hope was entertained of his recovery.

From Mesmer's own time onwards both followers and opponents of his theories willingly listened to the statements of scientists on the question and found support for their views on both sides. Before we continue our account of the more or less puzzling phenomena which may appear in relation to mesmerism we must pause for a moment to note the opinions expressed by one of the great scientists, Jöns Jakob Berzelius (1779–1848), in various contexts.

As we have just seen, Berzelius had no great respect for Cederschjöld's capacity, but he was nevertheless interested in, or at least curious about, the much discussed "nature force" which Cederschjöld, like many others, brought to the service of medicine.

In a letter to his friend, the Swedish chemist J. G. Gahn, on 10 June 1816 (5) Berzelius wrote: "I am trying to find out something about mesmerism, but I cannot make much contact. I went with Löwenhjelm¹ once to Miss . . . crona, who went into a trance and talked, both of them, I think, without using any trickery. . . . Löwenhjelm also showed me how he mesmerized, and both he and Noraeus² promised to let me be present at the mesmerizing of Mrs. Nordenström, and Noraeus said he would give me notice. They started the day before yesterday without my receiving any warning; perhaps they are deliberately steering clear of me, in which case I shall not put myself forward.

"I think I can now see that people really can be put into a trance state resembling the condition of sufferers from recognized somnambulism. Many circumstances lead me to believe that the subjects have a perception of what is happening both within them and outside, by means which are still not known, whilst the use of the ordinary senses seems to be in abeyance. How far this perception goes, if it really exists and can be shown to be something other than the play of dream and imagination, has not yet been properly tested; and the mesmerists are unwilling to allow tests,

² Probably the judge, Samuel Noraeus (1775-1826).

¹ Lieutenant-General Count C. Löwenhjelm, himself a hypnotist.

since these effects can only be arrived at by enormous efforts, which are a great strain on the subject. Both Miss ... crona and the young woman I saw mesmerized by Cederschjöld were very disturbed for a while before they could answer some questions, and their expression was like a patient suffering from fever when he is asked a question and has to think hard before he answers."

This statement—in spite of its reservations—shows an understanding attitude towards experiments with mesmerism. Berzelius thought he detected irresponsibility or charlatanism he lashed out mercilessly. Travelling through Germany in 1819 he stayed for a while in Berlin. A Swedish doctor, later Professor K. J. Ekström, was living there to study surgery, and one day he took Berzelius to see Wolfart's baquet. "Fortunately", writes Berzelius in his Travel Notes (6), "the charlatan himself was absent, so we avoided meeting him (p. 359). The magnetic tub was situated in a house belonging to the Crown, set at Wolfart's disposal for his conjuring tricks." Then he goes on to describe the place, with its "power-box" containing the "power-soup", and ends his account of the visit with this peroration: "I left this temple of hygiene and divinity with the hope of hearing some day that Professor Wolfart has been hanged on a fitting gallows, with a strong hemp rope, as a deliberate swindler".

Twenty-six years later he made a pronouncement on a matter closely related to mesmerism: the so-called "od-force". In the summer of 1845 Berzelius paid a visit to Karlsbad. One of the people who called on him there was the famous Baron von Reichenbach, who was very busy at that time with experiments on this phenomenon. It seems very probable that he wanted to submit the results of these experiments to the distinguished Swedish chemist and ask his opinion of them. We read in one of Berzelius's letters what he thought of them. He wrote to his friend, Count Trolle-Wachtmeister: "They are very curious: there is clearly something in it, but however conscientiously Reichenbach goes about his experiments it is very difficult to avoid trickery".

A few days later he wrote a letter to the algologist J. G. Agardh, son of that C. A. Agardh whom we spoke of earlier. "Reichenbach", he wrote, "was with me for a whole week in Karlsbad and gave me some notions of the new kind of enquiry he has been busy with for the last eighteen months: he is interested in the effect of certain weak, for most of us indeed imperceptible, physical influences on people in a condition of nervous debility, and particularly in the facility with which they can be put into the

somnambulistic state. All this would possibly be of unexpected interest, although Reichenbach at the moment suffers opprobrium because of it."

The not inconsiderable interest shown by Berzelius in Reichenbach's experiments is demonstrated by the circumstance that he reported on them in the Annual Report on the progress of chemistry and mineralogy¹ which he presented, as secretary, to the Academy of Sciences (Kongliga Svenska Vetenskaps Academien) in Stockholm in 1846. His account is especially interesting because of his emphatic recommendation that free and unprejudiced enquiry should

be held into the phenomenon of animal magnetism.

By way of introduction Berzelius points to the well-known fact that there exists a special morbid state of the nervous system into which a sick person can be put, either spontaneously or by design. In the latter case the term animal magnetism is used, a description which he finds very inaccurate. Opinions on the phenomenon are divided. You either believe everything said about it, even the exaggerated and physically impossible details, or you reject the whole thing as a misunderstanding or a fraud. The most sensible people keep quiet. "That there is some basis of reality in all this," he writes, "cannot be doubted by those who consider it is worth taking trouble to arrive at the truth; but sober enquiry and reliably demonstrated results are still awaited in this field, in which superstition and insufficient, or almost non-existent, evidence accompany all experiment, to such an extent that sober scientists have hitherto preferred to avoid the subject entirely. Yet in many fields it is true that experience often produces circumstances which seem incomprehensible and only too easy to condemn as misunderstandings or frauds. This is not the right way: it is just as necessary to demonstrate that what one believes false actually is so, as to show that what we think true is in fact the truth, and the real scientist does not shun either duty."

After describing some of Reichenbach's results in his experiments Berzelius proposed that his field should be studied by a number of scientists and that the evidence should be examined with "the strictest regard for logic and system". Anyone who tries his hand at this sort of enquiry is in the position of a magistrate who has to judge an offence, which he has not observed himself, and has therefore to rely on the evidence of witnesses. The scientist

¹ Ärsberättelse om framstegen i Kemi och Mineralogi, afgifven den 31 Mars 1846. A French translation of this report was published in the Journal du Magnétisme 1847, IV, pp. 76-78.

must be just as versed in cross-examination as the magistrate, must be equally free from preconceived ideas, and equally strict in the interpretation of conflicting depositions. Like the magistrate he runs the risk of being misled by unreliable or fraudulent evidence, and a lack of precision in the witnesses' observations. This kind of study is therefore the most difficult a scientist can have to deal with, and we must respect the courage of the enquirer who is convinced that there is something worth enquiring into, who has a respected name as a scientist to defend, but is none the less prepared to fight prejudice, short-sightedness, conceit and even ridicule to bring his enquiry to a successful conclusion. Berzelius concludes, "No subject of enquiry should be abandoned on the ground that it is difficult to carry out, or that it is wrongly regarded by contemporaries as unimportant or ridiculous".

The first and probably the only time "animal magnetism" formed the subject of a university dissertation in Sweden was on 18 December 1818. On that day Otto C. Ekman, an army doctor, presented his thesis for the degree of doctor of medicine in Lund University; the title was: Dissertatio academica sistens casum magnetismi animalis, Lundae, 1818.¹ In the following year the work came out in slightly enlarged form in a Swedish translation (7).

In his foreword to the Swedish edition Ekman wrote: "I do not venture to put forward any theory on the nature of animal magnetism, although it is much pleasanter to invent than to conduct tiresome experiments. I shall merely present the subject from the historical angle, describing things simply as they happened, and as they have been confirmed by reliable witnesses." The dissertation is stated to be an extract from the journal which he "wrote in the presence of a number of people while the patient was in a state of magnetism".

Examination of the paper shows that the author scarcely carried out experiments in any modern sense, certainly not under the conditions which would be thought necessary today. He is content to report from day to day what happens, which of course makes it difficult to survey his work properly.

It is regrettable that Ekman did not understand how to conduct, or was not in a position to conduct, a basic scientific examination of the patient he was treating.

¹ For an abridged French translation of this thesis see the *Bibliothèque du Magnétisme Animal*, Sept. 1819, VIII, Nr. XXIV, pp. 189–193 and for additional material see pp. 269–273.

She seems in fact to have been from the parapsychological point of view a very valuable case for enquiry. Clearly she possessed a great number of mediumistic gifts—if we can trust Ekman's account, and there is no reason to doubt that his account is given in good faith.

The majority of the patient's performances are not corroborated in any way except in that there were witnesses present who confirmed the facts. Their genuineness must consequently be judged basically by comparison with other, well-documented phenomena of a corresponding nature. Although one must make certain reservations, an account of some of Ekman's experiences should be of considerable interest for modern parapsychological study.

Ekman's patient was a 19-year-old servant-girl, Anna Nilsson. She is described as pale-complexioned and afflicted with all kinds of complaints. She suffered from pressure round the waist, shortness of breath, frequent fainting-fits, tiredness, headache, noises in the ears, palpitations, spasms, digestive troubles, irregular appetite, constipation, swollen belly and amenorrhoea. She had an unsettled and depressive disposition. With all this she had an itch in the nostrils which was thought to be caused by intestinal worms. She herself did not believe this, since she had never found worms in her excretions. In her view it was fright which had caused all her complaints.

After describing the girl's illnesses Ekman gives a piece of information which from the historical angle is very interesting. He says that the patient's condition resembled hysteria, and for that reason her master, Mr. Richter, a respected merchant in Malmö, considered that mesmerism should be resorted to. He therefore began to treat her in this way, for the first time on the 25th July 1818.

The first point worthy of note is that at that time mesmerism was accepted as a valid treatment for hysteria; the second that this view was so universal that a merchant who must surely be regarded as an amateur had some knowledge of the subject, and the third that he was even capable of carrying out the treatment himself.

Richter continued to treat the girl until the 30th July. The process of mesmerizing her does not appear to have given him any particular trouble. On the last day he put her into a state of mesmerism in Ekman's presence in a matter of three or four minutes, although the girl was busy with household duties and Richter was in another room.

On the 31st July Ekman took over the treatment himself and continued until the 3rd October of the same year. During that period he mesmerized his patient fifty-one times. This always took place

in the presence of witnesses: these were pretty well always Prof. C. Trendelenburg, a doctor of medicine, Dean A. P. Gullander, the parish priest, and the girl's master, Richter, whom we have already mentioned.

It seems to have been very easy to mesmerize Anna: she usually went into a trance in three or four minutes and then would remain sleeping for a couple of hours. The process of mesmerizing her was generally carried out from another room, or even when the patient was in another house.

Anna "slept" with her eyes open, but Ekman was sure that she could not see, since her pupils were very dilated, and he could

touch the cornea without her blinking.

Like many other mesmerists Ekman observed that his subject, in her trances, underwent a change of personality, both outer and Anna's features altered and became more beautiful, as though transfigured. In her speech she used "a politer style than persons of her class are wont to use". At a later stage the treatment seems to have given rise to religious interests in the patient: on the 23rd August she said: "Mesmerism does much good because it makes one God-fearing. I never read before, but now I want to read God's word." On a later occasion she said: "When I am mesmerized I think God is with me; before, my heart was hard, so that I could not cry, but now I think my soul is nearer to God; wherever I go I think about God". Ekman relates that after he gave up treating Anna her newly awakened interest in religion still persisted. She had declared that her greatest pleasure was to be with God. She also delivered a number of spiritual discourses, with picturesque illustrations and parables.

Like many other somnambulists Anna Nilsson could see inside her body. During Richter's period of treatment she had exhibited this kind of clairvoyance. She said she could see her heart: it was red and beautiful, and in it lay her happiness. When she saw into her belly she became distressed, because it was full of yellowish-white worms, some large, some small. To drive them out she prescribed certain quantities of a medicine which she said she had discovered herself; it consisted of garlic steeped in spirits for several days. However she also took a vermifuge prescribed by Ekman, and a few days later her excretions were found to contain a great many large worms and a prodigious quantity of small ones. She appears to have been completely cleared of this infestation.

Anna was able to see and describe almost all her internal organs, but her descriptions were very sketchy, and no purpose

would be served by repeating them here. Curiously this inward clairvoyance disappeared if Ekman was wearing anything made of

silk, for example a silk neck-cloth.

The pit of the belly played a leading part in Anna's conceptions. It is the seat of the soul, which she incidentally describes as bluish-white in colour, and it is the organ of sight, hearing, taste and smell. One day, when her doctor asked her if she saw with her eyes when she was under mesmerism, she said, No, she saw with her belly, but only saw him. "But I think," she added, "that it is someone else, other than me, who is seeing in this way." From time to time she made other introspective observations of a similar nature; for example on the 29th August: "Today I think it is not I who am speaking, but someone else who seems to write for me with printed letters, and holds them in front of my soul; I speak, but someone else is suggesting what I say, or writing it for me".

Anna could also see into other people, judge their state of health, prescribe cures for them, and so on. Of her doctor she was able to state that his lungs and intestines were healthy, but his nerves were not strong, and never would be. The liver was inflamed, in its lower region, and the gall-bladder was not very healthy. Ekman would not die of a liver complaint, but he must be on his guard against jaundice. He should drink spirits sparingly, keep his right side warm, take a little rhubarb from time to time, be cautious with fruit, and so on. Ekman tells us that he had had a serious attack of typhus the year before, and for a long time had had a pain in the right side, sometimes accompanied by vomiting, but had never said anything to Anna about these ailments. We must add that a couple of days after Anna had given Ekman instructions on his diet she upbraided him because he had been eating plums, contrary to her prescription! She considered apples to be the least dangerous fruit.

Professor Trendelenburg also was examined by Anna. Holding one of his hands, she declared that the left chamber of his heart was enlarged, whilst the right was normal. In the great vein which she saw leading from the left chamber there were large blood-clots. She judged his state incurable; the fault lay in his blood. Ekman comments that Trendelenburg had suffered for a long time from an irregular pulse, and the irregularity was particularly noticeable in the chest. His blood was very thick.

Anna was moreover able to trace the origin of different ailments, although their beginnings lay far back in time. Here are two of these cases.

A Mr. T—l asked Anna to explain the reason why he had a pain in one leg from time to time. Anna replied that the pain was in a bluish-white membrane surrounding the bone. The pain began in the toes and moved towards the knee. She said that T—l had injured his foot a long time before. The pain, which was sometimes very severe, could not be cured, but T—l had to keep his feet warm, otherwise he could get gangrene in the leg. At first T—l could not remember injuring his foot, but gradually it came back to him that ten years before he had had an accident, and had hurt severely the foot Anna indicated.

When Ekman asked her one day the cause of the headache he had sometimes, particularly above the eyes, she answered that it had its origin in a hard blow on the head. The fact was, relates Ekman, that several years before he had had a blow on the head from a sword-hilt, and had fallen unconscious to the ground. He was ill for a long time; but he had not mentioned the incident to

anyone, and had completely forgotten it himself.

There was quite obviously a very close relationship between Anna and her doctor, so close that it often took on an entirely paranormal character. A number of circumstances show that Anna was intimately involved with Ekman, so that she participated, as it were, in all his actions. When Ekman coughed, Anna coughed too. If Ekman ate an apple (without Anna seeing it), she found herself chewing as well. One day he bit a piece of orris-root, without particularly thinking about it; immediately Anna asked to taste a little of the scented root. If he left her sleeping and went off to breakfast, she lay and chewed whilst he was away. When he came back she would talk about what he had been doing and ask for some breakfast herself. One afternoon Ekman for some reason was depressed. The same afternoon Anna too was depressed and told her master about it, but could not give any reason for it. On one occasion when Ekman left her for a while, someone had taken her comb, which lay on a table beside her. She immediately began to shout: "They took my comb," and went into violent convulsions. The comb was a present from Ekman. The next day she declared her attack was due to the fact that the comb was magnetized.

If some "stranger" touched the pen or the paper which Ekman used, Anna experienced discomfort. She could always tell whether

it was the pen or the paper which had been disturbed.

One day Anna told her master that the previous evening at nine o'clock something "came over her" (flög på henne). She had such a pain in the left side of the throat and the left ear that she could

scarcely swallow. At the same time, on the same evening, a sore throat which Ekman was suffering from became so painful that he had to take medical advice. The symptoms were identical with Anna's.

Anna was also closely involved with a fellow-servant called Kjersti, but here the link was one of strong antipathy. When Anna was in a mesmeric state this antipathy was clearly expressed, sometimes more, sometimes less strongly. How far it was shown in normal daily life is not related in Ekman's account of the case.

If Anna lay in her mesmeric state and Kjersti came near her, she always showed signs of distaste or positive indisposition; she would even go into a fit of hysterics if Kjersti crossed the courtyard at a considerable distance from her. She could tell if Kjersti laid her hand on the other side of the wall of the room in which she was lying in a trance. She could hear what Kjersti was saying, even though she was in a distant part of the house. She refused to drink water, if it was Kjersti who had pumped it from the well and brought it into the house. How deep was this dislike can be seen from the following detail; when Ekman tried to discover how dependent she was on his will, Anna declared that she felt obliged to do everything he ordered her to do—provided it had nothing to do with Kjersti.

It is a curious fact that on one occasion, when her hated fellowservant had a sore on her forehead, Anna recommended her to take off the plaster she had put on it and substitute a linen dressing smeared with a certain salve, and the sore would heal quickly. So indeed it did, but whether this was due to Anna's prescription must remain undecided.

Ekman's dissertation contains a number of examples of Anna's capacity to see and hear, at any rate to perceive, things in situations where the operation of the ordinary senses could be of no assistance. After the instances which show her relation to Ekman and Kjersti, we must mention others.

Ekman dropped a thread from the window of the room where Anna was lying mesmerized, held the end in one hand and laid the other hand on Anna's belly, whilst another person some distance away outside held the other end of the thread. Anna was then able to name the person outside. Whether Ekman knew who it was is not reported.¹

¹ [Cf. the experiment with Caroline St. in which words spoken at the end of a wire hanging out of a window were transferred to the somnambule. ee J.A. C. Kerner, Geschichto zweyer Somnambülen ... (Karlsruhe, 1824), p. 306. Ed. See also above, pp. 156-157.]

In this connection the following experiment is also deserving of mention. Ekman held Professor Trendelenburg's hand. third doctor who was present, Dr. Strömberg, tied a handkerchief to the Professor's coat, and held on to it, standing behind him. Ekman laid his hand on Anna's belly, but she enquired whether he was touching her: she could not feel it. Only when Strömberg let go of the handkerchief could she tell that Ekman's hand was touching her. The explanation of this? Ekman simply points out that Strömberg was wearing a silk cloth round his neck.

Anna was mesmerized by Ekman when they were in different houses. If Ekman then took the hand of any of the persons with him. Anna was able to give their names—except for one lady, whom Anna however knew quite well. Ekman notes that the lady in question was wearing a silken shawl over her shoulders. "It is very well known that silk is a non-conductor for animal magnetism", Ekman adds.

A few days later it happened that Anna began to grow restless in her trance. She gave as the reason that a strange servant-girl, with a silk cloth round her neck, had come into the garden, and this was found to be perfectly true.

One day, whilst Anna lay in a deep trance, a somewhat intoxicated relation of hers arrived on the premises. Although she knew nothing about the visit she immediately began to show signs of discomfort. Asked the reason, she replied that she was experiencing an unpleasant but unaccountable feeling.

On one occasion Anna declared that she could hear what the other servants of the house were saving about her, although they were on the floor above. Investigation showed that her statements were accurate.

Anna was unable to read. None the less she claimed that under mesmerism she could read what Ekman had written if the writing were placed on her belly. To his great surprise she really did so. His explanation of this remarkable phenomenon must be reported,

if only for its curiosity value.

Ekman had observed time and time again that his patient could describe with great exactness what he was thinking. offers the opinion that, since a subject knows what the mesmerist is thinking, she must also know what he writes, since writing is nothing but thought expressed in symbols. In this way it was possible to explain how Anna, without previous instruction, could read a written text. In fact she was not reading, but knew what thoughts he had expressed in the text. "But", he adds, "to be able to determine what the mesmerist is thinking is miracle enough."

Towards the end of the treatment Anna made mental excursions to various places, under mesmerism. The first was to a house some twelve miles from Malmö, where she had once been in service. She said that during her visit they were eating breakfast in a small chamber. She was able to say what they are and who was at table. Ekman does not appear to have taken any steps to

verify this statement.

On the 18th September, whilst in trance, Anna said: "Today I'm going to Herdecke (a small factory-town in Germany, on the Ruhr), where Mr. Jacob Richter is staying (the son of her master), but the water makes it difficult; it will be hard to get there". The next day she suddenly became very unwell, whilst in trance, and complained of headache. The reason she gave was that, at Mr. Richter's suggestion, she tried to reach Herdecke, and indeed succeeded, though with great difficulty. She had seen Mr. Jacob in the street, and described his clothes. Next day she mentioned the journey cursorily. It had not been difficult to get there, once she had been there already; on the contrary it was quite amusing. The day after that she was more forthcoming. She related her conversation with young Mr. Richter, who, however, to her great indignation, did not reply. She described the room he was in, his clothes, and the people he was with. A week later she described how she had been in Herdecke three times the same day. Richter however had gone away with the gentleman, and she only met a servant-girl. She looked over the rooms in the house where he was staying, and particularly noticed the large number of copper pots in the kitchen.

Ekman says he established that in Herdecke and the country round there were usually a good many copper vessels in kitchens. He also records, in the Swedish version, that Richter senior had a letter from his son Jacob, who confirmed Anna's statements in all

the particulars he could remember.

One day Ekman suggested that Anna should convey a message to his mother in Svenstorp, a small village in Skåne. She said she would take the road across Skabersjö, an estate in Skåne. She soon began to feel indisposed, but after she recovered she said she had been at Skabersjö and talked to Ekman's sister, who did not however reply. When she was leaving, she met Ekman's mother, and gave her greetings from her son, but she too did not reply. The writer tells us that his mother was in fact at Skabersjö that day.

A week later Anna told how she had been at Ekman's home and saw his family, and his mother, who had just arrived at Malmö. She described how his mother was dressed and what they were doing in his home. Richter went off immediately to Ekman's home and was able to establish that Anna's description corresponded with the facts.

When Ekman stopped treating Anna, and went away to Lund, she told her master that she could see Ekman there and talk to

him, but never got him to answer.

The lively interest in animal magnetism which was shown in Sweden at the beginning of the century seems to have cooled very quickly. There was certainly no mention of it in the literature for a long time. Nevertheless it appears that mesmerism was being used in therapy at the time. Magnus Huss, in his day the most esteemed doctor in the country, in his book on hypnotism, which came out in 1888, says that he had made use of this treatment quite often forty years before, in dealing with cases of nervous illness, which he met "particularly amongst the female members of the more prosperous classes of society" (8, pp. 3–4).

It is in the 1860s that we first meet a newly awakened interest in animal magnetism, or, as it was now called, hypnotism, more especially among the general public. The explanation is that a Danish hypnotist called Carl Hansen in 1864 gave a series of "magnetic séances" in several Swedish towns, notably Stockholm, Gothenburg and Upsala. We shall come back later to this in many ways remarkable man. We shall only say here that thanks to his performances it came about that the subject of animal magnetism was discussed in the Swedish Medical Society. At a meeting on 23rd February 1864 Gustaf W. J. von Düben (1822-1892), professor of anatomy and physiology, reported on a seance at which he had been present. Düben's account started a lively discussion. Everyone who spoke was agreed that such séances "could have a harmful effect on the public, particularly on weak, sensitive and excitable persons among the less educated classes, and that therefore they should not be public, or allowed to take place on theatre stages" (9, pp. 127-128).

The discussion was resumed at the meeting of 1st March, and ended with a resolution that some members should prepare a statement on animal magnetism and particularly on Hansen's "productions". The statement which was presented on the 8th March

has some historical interest. Its content is outlined here:

- I. Mesmerism is said to be based only on "the subject's illusions or imaginings; the cures attributed to it are only due to faith, either entirely through hopes impressed on the patient's mind beforehand, or in conjunction with the healing powers of nature".
- 2. Hypnotism is characterized as a means of putting a person into a condition of insensibility and muscular spasm. This is a fact recognized by science, which shows that, by an irritation of the optic nerves, one can "induce, particularly in weaker and more easily excitable individuals, above all, women, nervous phenomena resembling, or identical with, those which occur involuntarily in hysterical illnesses". Clairvoyance, magnetic rapport, and so on, which are claimed to be characteristics of the magnetic state, are declared to be either invention of self-deception.

3. Mesmerists can only induce these bizarre, nervous conditions in the feeble, the sickly and the neurasthenic, in weak-willed, gullible and over-imaginative persons. "All the other tricks which they claim to perform, such as 'clairvoyance', the slavish dependency of the subject on the mesmerist's will, without that will being expressed in words or signs, are simply conjuring tricks to

mislead a credulous public,"

The totally condemnatory nature of the statement was partly due to the fact that Hansen had given two unsuccessful demonstrations for the Society just before. For one demonstration he had had two groups of doctors as subjects, twenty in each, for the other forty-two doctors.

The Society decided that its statement should not take the form of a declaration addressed to the public, but should be made known

through the official gazette, the Post- och Inrikes-Tidningar.

For twenty years no more was heard of animal magnetism, though it is difficult to decide whether this was due to the authoritative opinion of the medical faculty we have just given, or to some other circumstance. It is not till 1885 that we find evidence that the phenomenon was once again being examined. This time too the matter was brought up in the Swedish Medical Society. On the 3rd February 1885 Fredrik Björnström, a professor of psychiatry, wished to draw the attention of the Society to "the mischief caused by an itinerant Danish mesmerist". This was the man who performed under the name of Sixtus.

The discussion which followed Björnström's introduction of the matter led the Society to declare that it condemned public exhibitions of, and experiments with, animal magnetism. Björnström

was invited to draft the declaration in such a way that it could appear in the public press. A week later Björnström laid his draft of the declaration before the Society and the discussion continued,

but no action was taken by the Society (10).

Two years later, however, Björnström published a book of about two hundred pages on the development and present situation of hypnotism (11). The general interest in the subject is shown by the fact that a second edition was called for a month later. In his preface the author stated that his own experience of hypnotism was small, and therefore he had collected material for his book "from the latest and best authorities". Björnström devotes a considerable section of his book (pp. 124-156) to references to a whole range of paranormal phenomena which were the subject of experiment by Beaunis, Liebeault, Barrett, Janet, Lodge, Ochorowicz, Voisin, Héricourt, etc. Observing that a good deal of humbug occurs in this field, he states that facts cannot, however, be denied, facts which are brought to light by conscientious scientific investigation. He finds an explanation for the majority of such phenomena in mental suggestion or thought transference. He is extremely sceptical about the stories which are quoted for the existence of clairvoyance. These phenomena can be explained, he thinks, by modern knowledge of hypnotism and suggestion. He gives as an example the fact of the many cases where a somnambule shows unusual and inexplicable medical insight and thinks that the best explanation, at least when a physician has been present, is that his knowledge is transferred mentally to the brain of the somnambule.

There is nothing apparent in Björnström's book to show that he himself used the hypnotic sleep in his medical practice. In one place (p. 176) he reveals the fact that he had under his treatment a young man who was troubled by insomnia and acute auditory hallucinations and that a very considerable improvement ensued after several treatments by suggestion. If the patient was hypnotized at the time he does not mention it. If he, on the whole, became experienced in phenomena of a paranormal nature he passed this by in silence. His main aim has, according to the first edition of his book, been directed to issue a warning of "the many risks and harmful effects on human mental and physical life which

can result from the misuse of hypnotism".

Early in 1888 the question of hypnotism was again raised by the Medical Society. This time it was a practising doctor, Axel Lamm, who brought the matter up. He wanted the Society to collaborate in "legislation on hypnotism and suggestion". It was agreed to

adjourn the matter for discussion the following month. On 7th February there was a long and lively discussion, far more nuanced and less unanimous than the one they had had in 1885; but nothing positive came of it (12).

In the same year Huss brought out the book (8) mentioned above. The author, who was 81 at the time, wrote in the foreword that the experiences he had had forty years before with animal magnetism, its benefits and drawbacks, induced him now to carry out an examination of hypnotism. The principal object of the book was to draw attention to the misuse of hypnotism and its consequences (8, p. 11). He too had no interest in parapsychological phenomena.

Shortly before the discussion amongst the members of the Medical Society took place, Otto G. Wetterstrand began to publish in the journal *Hygiea* a lengthy essay on the use of hypnotic suggestion in practical medicine (13). It came out in book form (14) in the same year with an altered title and was translated into a number

of foreign languages.1

Without exaggeration Wetterstrand can be described as the great name in the history of hypnotism in Sweden. He had studied under Liébeault and Bernheim and was a faithful follower of the Nancy school. The old theory of a magnetic fluid streaming out from the operator seemed to him to have been finally refuted by Braid. Wetterstrand acquired a particularly rich experience of hypnosis: in a short popular article written in 1889 (15, pp. 18–19) he says that he has induced hypnosis 60,000 times. His hypnotic power seems to have been supreme: Forel reports that, of 3148 people, Wetterstrand successfully hypnotized 97 per cent (16, p. 201). But it seems his patience too was limitless. He himself tells us in the article that he once had a patient, a middle-aged woman, whom he succeeded in hypnotizing only after seventy attempts.

Wetterstrand's fame spread far beyond the frontiers of Sweden. Crowds of invalids came like pilgrims from many countries to his consultations in Stockholm, to be healed by the great miracle doctor. His consulting-room became an absolute dormitory, with people lying there in a hypnotic trance. The Hungarian writer Lajos Hevesi, gave a striking description of the "Grotto of sleep"

in his book (17, pp. 178–189).

Wetterstrand was a devoted practitioner who used hypnosis

 $^{^1}$ French and German translations were published in 1890 and 1891, and an English one in 1897.

in the service of mankind. Research, in the strict sense, was not his line, even if he had had any time for it. Least of all was he interested in parapsychological phenomena, although it is very probable that he met them from time to time amongst his enormous clientele. Indeed, it was with one of his patients that he had an experience of direct thought-transference which compelled him to believe in it although he had no idea how it was to be explained (39, pp. 34-35). It is characteristic that when he did carry out a few experiments it was someone else who kept a record of them. For example, it was Sydney Alrutz who reported on his successful attempts to produce burn blisters by means of suggestion (18). It was Alrutz too who described an experiment intended to provoke a so-called personality change. He writes: "One day Dr. O. Wetterstrand showed me a demonstration with a doctor's wife, a lady of some forty years of age, whom he hypnotized and took back in time to the age of fourteen and even younger. At about 'ten years of age' she was asked to write her name. She wrote down her maiden name in a very childish hand. Next time, at my request, she brought her old school-books with her, and we compared the signatures in them with those from the same age which she had written under hypnosis. They were so exactly alike that you could not tell one from the other" (19, p. 178).

In 1888 an article (20) by Dr. P. A. Levin was published on auto-hypnotism and mental suggestion. The title does not altogether correspond with its contents. It deals with two very different parapsychological instances, one a case of premonition unconnected with hypnotism, and the other a case, or rather two cases, of telepathy or suggestion. Here we shall only be concerned with the second.

Levin was physician at the mineral spring of Bie, and one summer he had under his care a 17-year-old girl of good family who had a severe nervous illness. His treatment included frequent hypnotism. When the girl, Henrika, was to go home, at the end of the spa treatment, a woman hypnotist was found to treat the girl at her home in the country.

One winter evening when Henrika's mother and sister, and Miss Å., the hypnotist, were all with the sick girl, who had just been put to sleep for the night, they suddenly heard the sound of bells in the grounds and then a knock on the door. The mother stood up, surprised by the lateness of the visit, and wondered who it could be. Miss Å. asked the patient who it was who had arrived.

The girl thought for a moment, and then answered: "Why, of course, it's brother T., and with him comes N.N." When the mother, who, with Miss Å. and Henrika's sister, had heard quite clearly what the hypnotized girl said, came out into the hall, she was surprised to find herself facing the two people her daughter had just named, a surprise all the greater since neither was expected. Her son lived some four miles away, and his companion, a girl who was a friend of the family, lived in a different province; she was on a hastily arranged trip, and had made a detour in order to see her friends.

After a while Levin came to see his patient, but the day after his arrival he was called away to see another old patient. Before he left Miss Å. asked him to hypnotize the sick girl that evening, so that she might have the evening free to go out, and this he agreed to do.

The person Levin went to visit lay dying of cancer, after losing a great deal of blood. The sick-room was in a gruesome state, with a number of washbowls containing congealed blood. Levin could do no more than tell the family that death would not be long

delayed.

On the way back to Henrika's home Levin noticed in the moonlight a house being built beside the road, and in front of it an enormous excavation. He wondered why they should put the cellar in front of the house in this way but found later that in fact they were constructing a concrete tank for some industrial purpose.

When Levin got back to Henrika, who was upset because her induced sleep had been delayed, he took her hand and put her under hypnosis. Whilst he sat thinking about his experiences of the day, he had the idea of asking the girl if she could say what he had done during the day, and what he was thinking about.

"Yes," she said, "but hold my hand!" Levin took her hand, and, after a moment she said: "Horrible! Three washbowls full of blood." "Where has the blood come from?" asked Levin. "Why, from B. H. (the name of the cancer patient, known to Henrika's family). She is dying. It's a good thing." "Why so?" Levin asked her. "Well, she has been ill for so long." "Is she dead?" the doctor asked. "I can't really see, but she is lying very still." "Did I see anything else today?" he went on. "Yes—so strange; a great hole in front of a house!" "Is it a grave to bury the dead?" "No, I can't tell, but it's very big. So peculiar!"

Levin seems to have had something of a shock. He writes: "I was dumbfounded, and thought: I won't ask any more ques-

tions". He adds that "after this experience I never put questions to her or to any other hypnotized subject. . . . When I went back to the others they asked: 'Are you ill? You look quite pale and exhausted!"

Levin says he was by no means inclined to mysticism; on the contrary, he was very sceptical, but could not reason away such direct experiences. "There must exist a mental state," he concludes, "in which a person can perceive events which are not perceptible by the operation of the ordinary senses; a state which may be uncommon, but is induced in a natural way, by genuine methods." He regarded his experience as corroboration of the existence of mental suggestion.

Of all the experiments conducted in the 1880s in Sweden on paranormal phenomena in connection with hypnosis, the most far-reaching and at the same time the most interesting were those carried out in Kalmar by an army doctor, Torsten Alfred Backman. There is an account of them in *Proceedings* of the Society for Psychical Research (1891, VII, pp. 199–220) entitled "Experiments in Clairvoyance". There is also an account in *Annales des Sciences Psychiques* (1892, II, pp. 98–125) and in *Svensk Tidskrift*, 1891, Häfte 12. Only a couple of Backman's experiments will be described here.

It is worth mentioning that Backman studied hypnotism under Liébeault in Nancy, but this was after he had published the above

paper.

Backman emphasizes that his experiments do not claim to be strictly scientific. At the same time it may be pointed out that he was the first Swedish enquirer in this field—so far as I know—who took pains to verify the results of his experiments; his article contains a good deal of evidence to attest this. He prefaces his exposition by some observations of a general nature which are not without interest. In the course of his experiments he has observed that people with clairvoyant powers are by no means as rare as is usually supposed; many people who have been found receptive to hypnosis are also clairvoyants. His youngest clairvoyant subject was a girl of 14, the oldest a man of 66. The character of the clairvoyants varied considerably, and so did the depth of hypnosis. He found that the latter need not be very deep-indeed in some cases clairvoyance might occur in subjects who were not under hypnotism at all. It is worthy of note that Backman almost always got his subjects, when they awoke, to preserve a memory of their experiences in the hypnotic state. They felt no unpleasant effects from this, and it had the positive advantage that they were able to report a great many details which they had not mentioned under

hypnosis.

Backman carried out experiments in different ways. He usually hypnotized his subjects by the Nancy method. When they had been under hypnosis for a few minutes he would order them to go (in spirit) to a certain place and visit a certain person, and he then put questions to them. After coming out of the trance they had to describe once again what they had experienced. Sometimes Backman brought a "guide" into the picture. The procedure was simple: the experimenter ordered his subject to find a certain person, living or dead, and get the required information from him.

The first time Backman conducted an experiment in clairvoyance the subject was a fourteen year old girl, Anna Samuelson, a labourer's daughter. Anna, who was Backman's patient, had been treated for a serious organic heart trouble, and, during treatment, had shown telepathic gifts. We must let Backman himself

tell of his first clairvoyance experiments with Anna.

"Once, when she and some other patients were hypnotized at the camp of the regiment of Kalmar, about 13 miles from the town of Kalmar where I live, I asked her to 'go to Kalmar'. On my asking if she were there, she answered 'yes'; and little by little she described how she saw a great town, where there were two big buildings, one having several steeples (towers) [the church and the castle]; the house where I lived was a yellow house two stories high, and I lived on the first floor. She then entered the apartments, passed the lobby and one room, and then came to another room where she admired 'so many beautiful pictures, especially one which was so large'. She then entered a third room and was greatly astonished at seeing things hanging on the walls; she had never seen any such things hanging on walls; they were probably made of wood. [A great quantity of old china hangs on the walls.] In this room she saw a lady, whom I recognized from her description as my wife, and a little boy; but there was something strange about him, she saw him double. [A pair of twins, both boys, extremely like each other.¹] So far I was not surprised, as, in order to give this information, she had only to employ her faculty for thought-reading, but after this my thoughts and her statements began to differ. There was an old lady in my house, and expecting that the girl might 'see' her also, I asked if she did not see another lady, to which she answered that she did see another, a young girl, whom she described so

¹ [The twins, Gaston and Louis Backman, who both became professors of medicine, were so alike, even when grown up, that it was very difficult to distinguish them.]

exactly that I recognized Miss H. W. After that she told me that my wife dressed and went out, entered a shop and bought something. The experiment ended here.

'I now made haste to write to my wife and ask if Miss H. W. had been in our house that day (in June 1888), and if, after her call, my wife had gone to a shop and bought something. Some officers of the regiment who knew of the case were with me anxiously awaiting the answer, which came by return of post and was imparted to them.¹ It expressed my wife's great surprise (as I had not mentioned the means by which I had learnt the facts) and said it certainly was true that she had spoken to Miss H. W. on that day and hour, and had afterwards gone to a shop in the same street to buy something, but Miss H. W. had not been at our house but at Ryssby, 20 kilometres from Kalmar, and had been talking to my wife through a telephone" (21, p. 201).

In the winter of 1889–1890 a young man disappeared in the countryside where Anna lived, and it was supposed that he had fallen through the ice of a frozen lake in the neighbourhood. Extensive dragging gave no result. It was therefore decided to make use of Anna, who was put into a trance by a local doctor. She described the place where the body was to be searched for, so many feet from the shore, and so many feet to the left. They dragged the area indicated: still no result. After a few days somebody had the idea that Anna had mixed up right and left, as she had often done before. On this supposition a further search was made, and the body found (21, p. 204 but cf. Proceedings of the

Society for Psychical Research, 1892, VIII, p. 408).

Backman thought his best subject was a servant girl of about 26, called Alma Rådberg. Until her teens she had been delicate and sickly, but after hypnotic treatment she had become strong and healthy. She is described as a pious, gentle girl, quite intelligent and not in the least hysterical. Both Backman and others had carried out innumerable experiments with her. She was extraordinarily receptive to suggestion, both in and out of hypnosis. In both states she had successfully undergone every possible kind of experiment, including the production of stigmata. She was particularly successful when she was required to betake herself in trance to other people's houses, unknown to her of course, and describe the people, the furniture, the pictures and so on. Backman tells us that the successful experiments of this kind carried out with Alma were so many that he could not report them all. I shall give two instances, which seem to throw special light on Alma's

¹ This letter cannot now be found.

clairvoyant powers. A number of her statements may be based on telepathic communication, since in both cases people who knew the households she described were present at the séances. A great many details however were unknown to them. I give both accounts in Backman's own words (21, pp. 204 ff.).

"In October, 1888, Captain O. and his wife, who were in Kalmar, at the house of Alma's master, Baron von Rosen, the Captain of the Pilotage, asked permission to be present at an experiment of this kind. This was granted, and Alma was hypnotised and then told to go to Stockholm, to the place where Captain O.'s mother-in-law lived, to enter her apartment and say what she could see. She then described -quite correctly, as was afterwards found—the rooms and some remarkable objects in them, which were unknown to all present, except to Captain and Madame O. Among other things, she described minutely an antique cupboard with conspicuous carving on the doors, and metal shining under it [there was really a mirror under the carving]; also a bust in a window, a group of flowers near a door, portraits, &c., everything with minuteness and perfect accuracy. On being asked what Captain O.'s mother-in-law was doing, she said that she was sitting in one of the rooms, talking to a young girl, who, however, was not either her daughter or her grandchild, as we all supposed, but someone else. [We heard some days later that the lady had really been sitting then in the room described and talking to her maidservant.] At Captain O.'s wish, Alma was asked whether his motherin-law had received any letter that day. 'Yes, she had: the letter contained a key and spoke about clothes.' Captain O. then told us that he had really sent a trunk containing clothes to his daughter, who was living at his mother-in-law's, and that he had written to his motherin-law about the trunk, enclosing the key in the letter. On awaking, the clairvoyant gave Captain O. a great many details about the apartment which she had not mentioned before, and which were in the main correct.

"On another occasion she was hypnotised by my honoured friend Baron von Rosen, and the following [21, pp. 205-206] is his account of what took place:—

One day in September, 1888, in the afternoon, Alma Rådberg was hypnotised by me on my boat Kalmar, at Kråkelund, on the east coast of Sweden, where we lay at anchor for the night. There were present the Director-General of Pilotage, Ankarkrona (who has kindly allowed his name to be published), Captain Smith, commanding the Pilotage at Norrköping, my wife and I. The clairvoyant was ordered to find the Director-General's house at Stockholm and describe his apartment, where neither she, my wife, nor I had ever been. She then described the lobby—very dark, oblong, a table near a wall, and a carpet on the floor; the drawing-room—a very large room, with the

tables, sofas, and chairs as they actually were, plenty of ornaments (bibelots) everywhere, in a corner a number of plants, of which she remarked that some were artificial, a magnificent chandelier, and on one wall there was something strange, which she found it difficult to describe, it was like shelves from the floor to the ceiling, covered with plush, and on these shelves were standing many pieces of plate, on which 'something was written' [testimonials with inscriptions]. also described correctly a large picture of a landscape, and a large portrait of King Oscar, which was placed on an easel, draped with a red cloth. The dining-room was dark, with a high dado and a dark fireplace; there were antique things standing on the dado; near one door something very peculiar, made of wood, and pointed at the upper end [this, which she could not name, is a pair of carved snow-shoes, placed near the door]; also a dark chandelier and a couple of large old chairs. In the Director-General's study, she described the carpet on the floor, the sofa, two tables, and a large nosegay in one corner, and said that there were many pictures. On being asked where the wife of the Director-General was, she answered, in a little room,—in the study, she was sitting there reading a newspaper. When told to say what newspaper it was, the clairvoyant answered, after very great efforts, 'Sven-ska Dag-bla-det'. She said the lady had on a black brocaded dress, of some thick material. On being asked if Madame A. had been at home the whole day, the clairvoyant answered 'No'; and went on to say that Madame A. had paid a call at a place quite near, at the house of a young couple, and she described one of their rooms, and how the young lady, who was wearing a dark blue morning dress, was playing with a baby a few months old; she also gave a description of her husband and of a maid-servant. 'Do you recognize the young lady. Alma?' 'No-yes-now I remember! It is Mrs. R.' (Here she gave the name of a young lady whom she had only seen once for a moment, a year before, when she was passing through Kalmar.)

"At the request of Captain Smith, I told Alma to visit his home in Norrköping. She obeyed, though unwillingly, and described correctly the dining-room and bedroom. In the latter was Madame Smith, giving medicine to a little girl, who was coughing, and about whom she was very uneasy; there was also an elderly maid-servant in the

room.

"Alma was now awakened, and seemed well, healthy, and cheerful. When awake, she described still more distinctly the homes both of the Director-General and of Captain Smith. According to information given later by the Director-General, verbally and also in writing, Alma's description of his house was wonderfully accurate; also his wife's dress, the call that she paid, the young couple, and even, contrary to our supposition, the newspaper she had been reading, were all correctly described.

"Captain Smith also said that all she had said of his house was

correct. The little girl had been taken very seriously ill the same day, which was the cause of his having reached Kråkelund with his pilot-boat a little late, but he had not told the reason to anyone present.

"That all this is true and corresponds with the facts is attested by

ROBERT VON ROSEN, Baron, Captain of Pilotage, Kalmar."¹

Backman's experiment manifestly attracted considerable attention amongst those interested in psychical research. This is shown by the fact that no less than four representatives of the Society for Psychical Research took the trouble to go to Kalmar in order to study the case on the spot. The party consisted of Charles Richet, the brothers F. W. H. and A. T. Myers, and M. Houdaille. The group conducted a number of experiments: two of them, described as "at least partial successes", are given in the report on the visit to Kalmar published later in the *Proceedings* (pp. 370–373). The following passage shows the favourable impression they gained from their visit: "Perhaps the most important outcome of our visit was the conviction which we all of us gained as to the absolute candour and disinterested desire for truth with which Dr. Backman's experiments are conducted, and the simplicity and good faith of the subjects whom he employs".²

EXPERIMENTS IN NORWAY IN THE NINETEENTH CENTURY

Norway's contribution to the literature of animal magnetism and hypnotism in the nineteenth century is not very considerable. This is not to say that the Norwegians took no interest in the subject; on the contrary as in the other Scandinavian countries their interest was strongest in the beginning of the century and in the eighties. This appears from a contribution on mesmeric cures in Christiania, 1817–1821 (22) written by Axel Johannessen, a doctor, and later professor, and presented to the Christiania

¹ The first written record of these incidents is that furnished by the Director-General of Pilotage, Mr. H. J. Ankarkrona in January 1889 and printed in the

Proceedings of the Society for Psychical Research, 1892, viii, pp. 405-7.

² [It is worth mentioning that at this visit to Kalmar the investigators from England do not appear to have tried any experiments in travelling clairvoyance with Alma for reasons not disclosed in their report. A criticism of the experiments described in the *Proceedings* of the Society for Psychical Research was sent to the Society by Mr. Knut Wicksell, but this paper has not been published. In it he pointed out a number of defects in the records and made suggestions as to how normal knowledge of some of the incidents might have been gained. See *Proceedings* of the S.P.R., 1892, viii, pp. 408–411. *Ed.*].

Scientific Society by Jacob Worm-Müller, professor of physiology, in 1886.

The author tells us that the Norwegian capital went through its Sturm und Drang period in this connection in 1817. His motive for publishing the essay was that hypnotism had once more become an object of interest. It seemed to him well worth while to deal with it since Norwegian writers had been, and still were, remarkably

silent on the subject.

According to Johannessen the first man to take up mesmerism was Dr. Jens Grønbech-Døderlein. He had become interested in animal magnetism through reading C. A. F. Kluge's well-known book Darstellung des animalischen Magnetismus als Heilmittel (Berlin, 1811). In his official report for 1818 Døderlein describes a mesmeric cure effected in the period 29 December 1817 to 12 May 1818. His patient was a 24-year-old woman, who for five years had suffered from severe attacks of hysteria, chronic constipation, irregular menstruation, insomnia, depression and a distaste for every kind of work, but was intellectually superior. The following notes are of interest. The patient could predict with exactitude the time of any change in the state of her health, she could name what the doctor laid on her belly, a playing-card for instance, she could diagnose her own troubles, and prescribed medicine, with good results. She could predict well in advance when the treatment ought to cease, and she appears to have been restored to health in every way.

In his report for 1820 Døderlein describes how he treated for three months a 26-year-old woman by mesmerism. For five years she had suffered from a very persistent headache. She had consulted without success the most brilliant doctors. In trance the woman said that the headache was caused by a heavy blow on the head. She prescribed a medicine which quickly gave her relief and after a time she was completely free from the headache. After about a year Døderlein observed that she looked healthy

and well.

Another Norwegian doctor who, according to Johannessen, made use of mesmerism in his practice at an early stage, was Medical Officer Fredrik Holst, subsequently professor of pharmacology. In the years 1819–1821 he went abroad to continue his studies and met Professor Wolfart in Berlin. When he came home he began to use mesmerism in therapeutics. Only one case is mentioned by Johannessen which Holst treated by this means, though it is not interesting from our point of view. He says explicitly

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that Holst never saw any "miraculous phenomena", and that the

patient never became clairvoyant.

Although both Døderlein and Holst carried out successful mesmeric treatment which aroused considerable interest in its time, animal magnetism rapidly sank into oblivion in Norway. Johannessen tells us that according to Professor Frans Christian Faye the cause of this was that teachers in the medical faculty in Christiania at this period said not a word about animal magnetism in their lectures. Another reason was that treatment by mesmerism was made a laughing stock by a very respected and trusted practitioner called With.

In 1851 the subject became topical again. In that year Professor Faye gave a lecture before the Medical Society in Christiania, in which he reported on the enquiry into animal magnetism being

conducted in the University of Edinburgh.1

The interest aroused by this seems to have been of a somewhat fortuitous nature. It was another thirty-five years before the subject came up again in Norwegian publications. On 10 March 1886 Dr. Christian Leegaard published an article in the Norwegian daily Morgenbladet on animal magnetism and hypnotism (23) in which he declared roundly that magnetism and hypnotism were pathological conditions. This statement prompted another doctor, N. F. Hauff, to put the opposite view in a paper presented to the Norwegian Medical Society in Christiania in which he asked if hypnotism was a pathological condition. Both the paper and the ensuing discussion were concerned largely with the nature of hypnotism. Neither the one nor the other mentioned paranormal phenomena (24).

The whole of the Norwegian nineteenth-century literature on animal magnetism and hypnotism has now been noted. There

¹ See Forh. i det med. Selskab i Christiania. (Norsk Mag. for Laegevidenskaben 1851, V), pp. 837-838. At that time in Edinburgh considerable excitement had arisen owing to various unorthodox activities on the part of some of the staff at the University. Dr. William Henderson, the Professor of Pathology, was being attacked by Dr. James Syme for his interest in homoeopathy and his employment of homoeopathic remedies for his patients, while the interest in mesmerism displayed by Professors John H. Bennett and William Gregory who were both on the staff of the University of Edinburgh was causing the deepest suspicion among their colleagues and was already arousing the ire of the Editor of The Lancel, to whom both mesmerism and homoeopathy were subjects which he both abhorred and detested. See R. Patterson, Memorials of the life of James Syme (Edinburgh, 1874), pp. 228 ff.; J. H. Bennett, The Mesmeric Mania of 1851... (Edinburgh, 1851); William Gregory, Letters... (Edinburgh, 1851); The Lancet, 31 May 1851 and 14 June 1851.

are however two articles which at least touch obliquely on our subject and may perhaps be worth a short mention here, though for somewhat different reasons in the two instances.

The first article is by C. Engelskjøn, a nerve specialist, and asks the question: Nature or Miracle? It was published both in 1888 in a series of booklets issued by the Luthersk Kirketidende (Lutheran Church Times) and later (25). The writer says that his article is occasioned by the fact that the air is thick with talk of all kinds of enigmatic cures, which are the subject of divided opinions. He thinks that a clarification of the whole matter would be of great advantage, "before spiritism gets too much of a hold on everything". This quotation may give the impression that the writer is aiming at cures based on Spiritualism. This is not in fact so. His exposition is concerned with every more or less unconventional form of healing carried out by suggestion, whether the patient is awake or in a state of hypnosis or religious ecstasy. In any case healing, in Engelskiøn's opinion, is brought about by a kind of activity dependent on the nerves, which he calls the psychoplastic force, and the organism's power to heal itself, which is conditioned by this force. It is outside the scope of this report to go any further into the writer's interesting theories and the examples he cites to support them. We should add however that what he calls the psychoplastic force clearly corresponds to the activity exercised according to modern physiology by the trophic part of the vegetative nervous system.

The second article we want to mention here has at least curiosity

value.

Critically minded people do not of course accept without hesitation the more or less mystical phenomena which appear in connection with animal magnetism and hypnotism. It sometimes happens, however, that the critical attitude goes over into its opposite. An instructive example is to be found in the Tidsskrift for praktisk Medicin (1886, pp. 167-170). The editor of the journal, Dr. F. N. Stabell, tells us, in an article purporting to expose hypnotism (26) that he was present at a seance organized by the Danish mesmerist Sixtus, whom we have already had occasion to mention. He performed the well-known experiment in which complete rigidity is induced in a subject by suggestion, so that it is possible to support him stretched out on two chairs, and the hypnotist can then stand on his body. The day after the séance the writer happened to have a talk with the young man who had been Sixtus's subject. He admitted that he was not hypnotized at all. He had only felt a slight drowsiness, when Sixtus mesmerized him, but it had soon passed over. Several times he opened his eyes, looked round and assured himself that he was awake and in control of his movements. Thus the matter was clear, the deceit exposed. The sceptical writer does not seem to have considered for a moment that the young man must evidently have been the possessor of most unusual muscular strength. Still less does he appear to have tried to prevail on the man to repeat this remarkable feat.

EXPERIMENTS IN DENMARK IN THE NINETEENTH CENTURY

In Denmark in this period animal magnetism and hypnotism had much the same development as in Sweden and Norway. At the beginning of the century interest in Mesmer's theories was relatively great, but soon sank to a very low level. There followed a period during which mesmerism seems to have fallen into complete oblivion, at least in medical and scientific circles. This lasted until the eighties, when a lively controversy over hypnotism broke out.

The earliest document in the Danish literature of the subject is a translation of a little German work (27) written by Dr. Joseph Weber, Director of the Royal Lyceum in Dillingen and Professor of Physics. The version published in Copenhagen in 1817 bore, translated into English, the attractive title Animal Magnetism, or the Secret of Human Life illuminated by Dynamic-psychical Forces (28). Still more sensational was the title of the second edition, published the same year in Copenhagen. It was Human Magnetism displayed in some of the most Miraculous Instances: highly instructive and entertaining reading for all those who are interested in the most extraordinary curiosities of modern times. From the German. Second revised edition, augmented by a Supplement on some effects of magnetism in Copenhagen, based on a Danish mesmerist's diary of his experiences, and presented by Blok Töxen (29).

In fact this second edition has very little in common with the first. The translation includes an introduction by Weber and an account of seven "magnetic somnambulists", taken from Dr. Arnold Wienholt.

The Danish addition contained very little of interest, at least from the parapsychological standpoint. It is not disclosed who the mesmerist was. The subject treated was a 14-year-old girl, Sophie S., who had been afflicted for some years with convulsions. The record, covering the period 14 October 1816 to 7 January 1817, is very summary and suggests that the mesmerist was not very experienced. Nevertheless, the case must have aroused a good deal

of interest; this is shown by the fact that several doctors and high officials were present at many of the séances. On two occasions

P. G. Cederschjöld was present.

The mesmerist's efforts to get Sophie to see into her own body were quite unsuccessful. On one occasion he held a piece of sulphur in front of the girl's belly and asked her to tell him what it was. But in spite of her both holding it and smelling it the experiment was a failure. On the contrary she was able on an occasion one day when a portrait was held above her belly to say whose it was. The following day she failed again in the same exercise. She could not make out what a picture of a rose represented. An attempt to get her to "read with her belly" was equally unsuccessful.

It is worth mentioning that Sophie learnt to put herself into a

trance by passes, and to wake herself again.

The following year, that is, in 1818, another work on mesmerism came out in Copenhagen, of a very different quality from the previous one. The author was a German-born doctor, Joachim Dietrich Brandis (1762-1845). He was born in Hildesheim, studied medicine in Göttingen, became professor of medicine in Kiel in 1803 and moved to Copenhagen, in 1810, where he had been appointed court-physician to the Queen of Denmark. acquired a great reputation as a doctor, and was, according to Paul J. Retter, much in advance of his time in the field of psychotherapy. After he had become acquainted with Mesmer and his methods he began, says Retter, to use hypnosis in his treatment, especially for patients with hysterical symptoms (30, pp. 53-54). The last statement may perhaps give the impression that Brandis was not very critical in his attitude to mesmerism, but this was not the case. To put his scientific position in a true light we must make it clear that behind his "conversion" to mesmerism there lay a stubborn resistance, a strong critical attitude to the new discovery and something of a victory over his own natural tendencies. His only work on the subject, on psychic treatment and magnetism (31), is very enlightening on the point.

His book is in two parts: the first deals with psychic treatment, and was published originally in 1815 in Hufeland's Journal der practischen Heilkunde (St. 2, pp. 3-51). The second part deals with animal magnetism and was written after his conversion. The first part seems designed to demonstrate that purely psychic treatment can have just as much curative effect as animal magnetism. To judge from the instances he reports he appears in large measure to have adopted a strict and authoritative manner in dealing with

his patients. He did this in treating an 18-year-old girl, who suffered from serious convulsions. In order to keep her constantly under his eye, and to be in a position to intervene promptly in his incisive manner as soon as any symptoms should appear, he took the girl into his own home. After a week she had already improved noticeably, and after a further two months she could get about a little, and was sent home. But after some six months her sickness returned with increased strength, and with a great many new symptoms. For seven months the disease got worse and worse. When finally there seemed to be no hope left Brandis had resort to mesmerism, "more for the sake of change and in the hope of giving the patient some rest and quiet than in the hope of effecting a cure". The patient immediately went into trance. After three or four sessions she became completely clairvoyant, predicted in detail the development of her illness and prescribed medicine. In six weeks she was so recovered that she could not only walk with ease but could even ride. The writer adds that a year later no trace of illness could be seen.

It is easily understandable that after this dramatic experience Brandis should continue in the path he had taken from sheer desperation, though without abandoning faith in the psychic methods he had used previously in his practice. It is to be regretted that he is so sparing of concrete instances of cases in which paranormal phenomena appeared. Brandis was clearly more interested in theoretical speculation on the phenomena of animal magnetism, and in experiments to find a so-called natural explanation of those phenomena. He says however that he had several cases in which the patient in clairvoyance predicted correctly the progress of his illness.

It is noteworthy that Brandis, as Retter points out in his work (30, p. 54), in spite of the great esteem he enjoyed, did not succeed in arousing serious interest in mesmerism among his medical colleagues. With his disappearance in 1845 mesmerism was forgotten for many years in Denmark. The man who gradually reawakened interest in the field, not only in Denmark but in a great part of Europe, was the Danish mesmerist Carl Hansen, whom we have mentioned above (page 225).

Apparently no one has brought together the facts about Carl Hansen (1833–1897) and his activity. Scattered notices turn up in various countries in the daily newspapers, as well as in learned works. Most of the information about him is to be found in a book by his fellow-countryman Dr. E. Fraenkel (32, pp. 60–62). When

the book came out in 1889 Hansen could look back on thirty years of activity as a mesmerist, and was then about 55. He was born in fact in Odense in 1833. I have not found any other facts about

his private life.

There do not appear to be any complete reports on the experiments Hansen conducted at his appearances, but as far as we can judge he demonstrated the usual feats which one sees at séances of this kind. According to information derived from various sources, he was able to induce in his subjects amnesia, analgesia and rigidity, as well as hallucinations of many kinds. The greatest impression was made by the demonstration which consists in "chaining" the subject by means of the hypnotist's hand, and the star turn in which Hansen induced complete rigor in a person who was then laid across two chairs, in fact the same performance as that of Sixtus. According to what Fraenkel says, in rather covert words, Hansen must also have experimented with clairvoyance.

As we saw previously, Hansen appeared in 1864 before the Medical Society in Stockholm, where his experiments were unsuccessful. He had been more successful in his appearance in Gothenburg, a few weeks earlier. He gave several séances there and was given many laudatory notices in the press; he returned

again in April the same year (33).

In Upsala too, where he appeared in April 1864, his performances were well received. Here he held a special séance for the medical faculty of the University, and for the town medical society, and appears to have been completely successful (34). In 1888 when Hansen wanted to arrange performances in Stockholm he was forbidden by the authorities to appear publicly (35).

In the autumn of 1886 Hansen had appeared in Finland. Here he seems to have excited opposition to hypnotism, at least in medical circles. An 18-year-old youth whom he hypnotized suffered for several months afterwards from physical and mental troubles. Probably Hansen neglected to annul certain suggestions made under

hypnosis (36, pp. 281-282).

Fraenkel relates that Hansen had a remarkable success in Germany in the late seventies. In Berlin his performances were regarded as humbug until he gave one in which he only experimented with doctors: of forty of them he was able to hypnotize eleven. When he appeared in Vienna a commission composed of doctors was set up to decide whether hypnotism was harmful or not. They pronounced unfavourably, and Hansen was forbidden by the police to appear in public. He therefore gave private

séances, which brought in just as many people as his public exhibi-

tions (32, p. 60).1

Dr. Fraenkel, who was a practitioner in Slagelse, and whose book (32), on magnetism and hypnotism, is referred to above, gave an address in 1886 on the subject to the Medical Society in Copenhagen. This address, which was published the same year in the Ugeskrift for Laeger [Doctors' Weekly Bulletin] (37; pp. 533-543, 561-569), was made up of a summary of the commonest hypnotic effects. The book is an expansion of the same material. It was clearly the appearance of Fraenkel's writings in 1886 that started the lively controversy on hypnosis which continued amongst Danish doctors for a couple of years. The discussion was conducted in print in the Weekly Bulletin. In 1887 a dozen people took part in it, in the next year rather fewer. It centred chiefly round three questions: the therapeutic value of hypnosis, the risks involved in it, and its medico-legal aspects. The paranormal phenomena which may appear in the hypnotic state were not brought into the discussion.

It should be mentioned in this connection that the book market at that time, in Denmark as in many other countries, was flooded with publications dealing with hypnotism. So far as I can discover their chief objects were to explain to people how simply they might be cured of every kind of disease by hypnosis, and to bring in an

easy profit for the publishers.

So far as Denmark is concerned we should end with a reference to the well-known Danish psychologist, Alfred Lehmann, who also took an interest in the problem of hypnosis. In the autumn of 1889 he lectured on the subject in the University of Copenhagen. His lectures on hypnosis and related normal states (38) were published in the following year but Lehmann did not concern himself with paranormal phenomena in his lectures.

¹ Further information on Carl Hansen will be found in R. Heidenhain's Der sogennante thierische Magnetismus, 4 Aufl., Leipzig, 1880, an English translation of which was published in 1880; "Mr. Hansen's hypnotic demonstrations" (Journal of the Society for Psychical Research, 1889, IV, pp. 85–86; 99); Proceedings of the Society for Psychical Research, 1892, VII, pp. 364–5. For the earlier German and Austrian controversies see F. E. Malton, Der magnetische Schlaf (Berlin, 1880); L. B. Hellenbach, Ist Hansen ein Schwindler? (Wien, 1880); "Die Discussion über Hansen in Wiener medizinischen Professoren-Collegium" (Allg. Wien. Med. Zeitung. 1880, XXV, p. 71) and cf. Den magnetiske eller saakaldte Huthske Naturlaegemethode Gennemset ap . . . C. Hansen (Kjobenhavn, 1889).

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